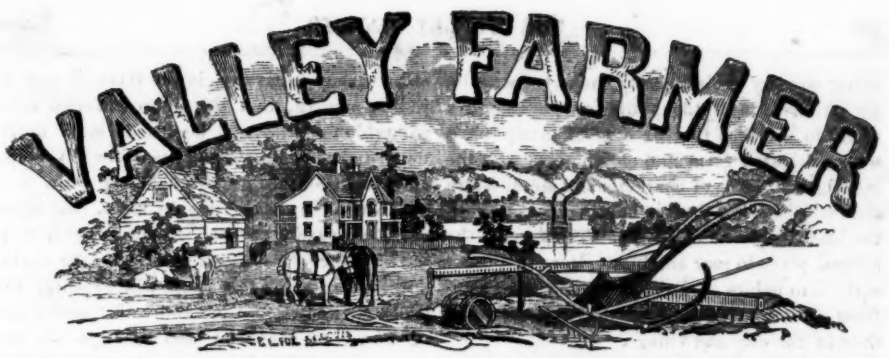

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AGRICULTURE FAVORABLE TO THE BEST CHARACTER.

Every profession has its influence on the character of those who pursue it and exerts a moulding force in their formation. This is as true of Agricutlure as any other. We do not intend to say that agriculture as a pursuit exerts a greater influence on the character than any other. Others may exert a greater and more direct influence on the character. But the influence of Agriculture is *better*. So far as its influence goes it is always in favor of intelligence, virtue, good order, sobriety, generosity and uprightness. The weight of its influence is always on the side of right.

1st. The pursuit of Agriculture is natural. It is man's natural means of living, and being natural it is adapted to his physical and moral condition of being. It is suited to his nature It is beneficial to his health of body, mind and heart. As a whole man he grows well in the pursuit of agriculture. Yes, we should say, it is more than natural—it is the Divinely ordained vocation of man. Adam was set apart to agriculture, by God himself. The chosen people of God, during all their palmy days of obedience and prosperity, were chiefly agriculturists. And it has been observed in all countries and in all ages, that the moral character and worth of a people may be known by their interest and advancement in agricultural pursuits. The Jews, as a people, have sadly fallen from the high position they once occupied, and have fallen just about in proportion as they have given up the pursuit of agriculture. If I mistake not, the last census shows but one Jew in the United States an agriculturist. His brethren are almost all traders to a man. It is so the world over. They inhabit every city. They cluster in all the great marts of trade. They possess untold wealth. The world's richest man to-day is a Jew. And yet as a people they are a fallen people, and in many countries are a by-word and a reproach, and have been so since they fell from the high position of power and worth they occupied twenty-five hundred years ago. We have no word to speak against the Jew or his religion. That there are many high-minded, morally worthy Jews, we most fully believe. We refer to them to show the position they occupied in the world when they were agriculturists, and the moral position they occupy, now that they are traders, to show the effect that the vocation has on the moral character. We believe a like effect may be traced where any agricultural people have become wholly a trading people. It is the inevitable result of giving up the natural, God-ordained pursuit of man for an artifical, unnatural one. There is a tendency in that direction in the people of our country. With all our agricultural opportunities, our young men and women have a craving for city and village life. They are captivated with its glare and show—little dreaming how much moral debasement often hides behind it. It is a bad omen. We grieve over it. The moral strength and glory

of our country are intimately connected with its agriculture. And the youth of our country ought to see that to rear a good family on a well cultivated farm and enrich them with the intelligence, force of character and moral worth that may be given them in such a place, is about the best thing a man can do. The farm is the natural place to rear children. Here they come early into habits of usefulness, and are secure from the thousand dangers that ever surround them in the city and village.

2d. The farmer has fewer temptations that make war upon his moral strength than almost any other man. His life is a comparatively quiet one. He has time for reflection. His moral plans, resolutions and principles can be made strong by frequent meditation upon them. He is less chafed by the world; less annoyed by the falseness and failures of others; less disturbed by bills, notes, bank notices, than men in the trading profession. In a word, he is on his farm, attending to his own duties, in a situation far better calculated to foster pure motives, correct moral principles and habits, an upright, moral character, than any other. For the mass of mankind, the farm is the great school of moral life. It is the place for pure hearts, for generous impusles, for upright life, fair dealing, for tender and warm sympathy. It is the place where suspicion, craftiness, jealousy, deceit, hypocracy, seldom find a home. It is the place where men are men and women are women in the true moral sense; where they are what they seem to be; where they wear no cloaks over their real characters, but are free, natural, out-spoken and honest. To say the least, this is what farmers ought to be. This is the moral result of their profession. Agriculture ever has been, and ever will be, the pursuit of all others best adapted to the moral good of the world.

THE PROPER PERIOD FOR CUTTING GRASS.

The time for hay making is now near at hand, and from the diversity of opinions that have been published to the world, in regard to the precise period of maturity at which grass should be cut, have, in former volumes of the *Valley Farmer*, induced us to discuss the subject somewhat at length. Later experience seems now fully to confirm all that we have said on that point. It is not, therefore, necessary to repeat the arguments in favor of cutting one variety of grass at one stage of maturity and others at a later period; but as timothy constitutes the chief variety cultivated in the West, it may be well to remark, that this grass is found more palatable to cattle and horses, is more nutritious, and will go further, when allowed to stand until the seeds are nearly ripe—say when they are just in the soft or doughy state, than when cut at an earlier period. Another fact is worthy of notice—we are almost upon the southern limit at which this grass will prosper, and it is well known that the roots of timothy are of a bulbous character and consequently our dry, hot weather after harvest is extremely severe upon them, and if not allowed to nearly mature before it is cut the meadow is liable to injury from this cause.

Period of Maturity at Which Wheat Should be Cut.

The usual practice among farmers is to let wheat stand, before it is cut, until the straw is entirely changed in color from green to yellow, and the grain has become hard and nearly or quite dry. Numerous experiments have been made in this country, but more particularly in England, to determine at what period of ripening it is best to cut wheat, having in view the greatest yield of grain, and that of the best quality. It is well known to those who have investigated the subject, that the ripening of the seed consists entirely of certain chemical processes, which we cannot here attempt to explain, that are of importance to be considered in order to make the most of the crop after it has been grown. The immature grain of wheat, in its early stage is found to be filled with a milky fluid, which gradually changes in consistence, from this milky state, to one more firm and solid. These experiments have been instituted to determine with accuracy at what period of this change the grain should be harvested to secure the greatest advantages. The unanimous opinion appears to be, that if grain is cut soon after the straw below the head, has turned yellow, while the lower part of the stem is still green, and the seed yet remains in a soft and doughey State, the grain will weigh more to the bushel and yield a greater amount from a given space of ground, that more and better flour is made from it, and where the straw is to be fed to stock, it is relished better and is more nutritious than if the grain was allowed to stand until it became fully ripe.

These experiments have been so frequently made and with such uniform results, that we feel unwilling to let the coming harvest pass

without again reminding our readers of the fact. A very careful series of experiments were made of this character, some years since, in Yorkshire, England, by Mr. John Hannam, and he sums up the loss by shelling, and in the weight and quality of the grain, from letting it stand until fully ripe, equal to $6 per acre, a sum, or even half of it should not be lost sight of by the farmer.

ENTOMOLOGICAL SURVEY.

The study of entomology is a subject of no little interest to the agriculturists of the United States. Since the death of Dr. Harris, of Massachusetts, one of the most distinguished entomologists in the world, we believe there is now no one particularly engaged in this science, so far as the public are concerned, except Dr. Fitch, of New York. While various agricultural products in every part of the United States are destroyed by insects to the value of millions of dollars annually, it seems important that more of our State Agricultural Societies should take the subject in hand, with the view to seek out some remedy for the destruction of the numerous swarms of the various insects that work destruction upon our crops. So formidable has become that minute insect, the wheat midge, in New York, that hundreds of farmers of that State have abandoned the culture of small grain altogether. The loss of the wheat crop, last year, in that State alone, by this insect, must have amounted to millions of dollars, while in the neighboring States, and even as far west as portions of Ohio and Indiana, its destructive ravages were hardly less extensive.

At a late meeting of the Executive board of the New York State Agricultural Society, the following resolution was adopted:

Resolved, That in the opinion of this Board the Entomological investigation, now being pursued under the direction of the able Entomologist of the Society, Asa Fitch, M. D., is one of the most valuable works yet undertaken for the benefit of the farmers of our State; and that the Hon. the Legislature be most respectfully requested to continue the appropriation of $1,000, to enable the Society to continue the investigations.

The example of the State of New York in this respect, as well as so liberally fostering and sustaining her agricultural society and establishing an agricultural college and experimental farm is worthy of imitation by other States.

INCRUSTATION OF SEEDS WITH MINERAL SUBSTANCES AS A SUBSTITUTE FOR MANURE.

A wonderful discovery has recently been made in France, or an old discovery revived under new principles—that of manuring the seed to be sown, instead of the land. This invention is credited to Mons. D' Illiers, who, it is said, has satisfied himself by numerous experiments, of the value of his discovery, and at the late sowing season a large area has been sown with his prepared seed, in various parts of France and in England, under a variety of local circumstances of soil, climate, and modes of husbandry, so that at the time of the next harvest we must be prepared to receive the wonderful results of this great discovery. To facilitate the application of this discovery, Mons. D' Illiers has, according the progressive agriculture of the present day, also invented a machine for preparing the seed after his established formulas regulating the nature, proportions and quantities of the mineral substances to be used, subject to the verdict of practical farmers at the coming season. The machine for the incrustation of the seed consists in a hollow cylinder suspended by two leather straps from a pulley, to which a rotary motion of about forty revolutions in a minute, is imparted, either from a steam engine or other motive power. In the cylinder the seed is introduced mixed with an agglutinous compound, itself rich in nitrogen; and then the mineral substances, reduced to a fine powder, are added, and from the rotary motion of the cylinder adhere to the seed in a regular coating. This is repeated until the entire quantity has been fixed. In order to prevent the humidity of the agglutinous mixture from acting upon the seed and causing it to generate before it is put into the soil, an hygrometric substance is mixed with the mineral powders, which abstracts all the humidity from the glue, and dries up the crusted seed almost immediately.

A French writer on this subject, in order to sustain this theory, makes use of some of the recent experiments of Boussingault, which sets forth that the production of what he calls a *limit* plant, has proved that the seeds of many plants contain the necessary quantity of nitrogen, not only for the germination of the plant and the nutrition of the nascent stem and leaves before the radicals have been sufficiently developed to draw a supply from the soil, but also to the production of a perfectly organized plant, though exceedingly reduced in its dimensions.

Such a plant, after several months existence in the open air or even in a confined atmosphere, has been found to weigh but little more than the seed from which it sprang. "This," he says, "clearly shows that the extent of the organism of that plant was limited by the quantity of the nitrogenous principles contained in the seed." This, we admit, is a clear and natural proposition. But he says, "As soon as I applied to the soil (exclusively composed of calcined quartz sand not containing a particle of decomposed matter or mineral manure,) a small quantity of phosphate of lime, nitrate of potash, and vegetable ashes, rich in silicate of potash, the plant immediately sprang up from its torpor, and grew luxuriant and strong, bloomed and brought forth and matured seed as well and as rapidly as another plant of the same kind had done upon a garden strip richly manured.

"This experiment clearly shows that the soil upon which the plant grew, exercised no immediate influence whatever upon the growth of the plant, so far as its nutrition went, but merely as a vehicle for heat and moisture, as well as the holder of the plant and the fine mineral salts upon which it lived and developed itself. This naturally leads us to ask the question, whether, instead of incurring great expence and trouble in manuring the soil thoroughly with *great heaps of dung*, containing but a small percentage of fertilizing matter, which is still reduced and less available to the plant by being disseminated over a larger surface than the roots of the plant can possibly compass; it be not possible to manure the seed itself, that is, surround it with a crust formed of the very mineral substances which are necessary to its growth, in the same proportion that they are found to exist in the seed, and in a sufficient quantity to represent exactly the weight of the aggregate mineral substances which are extracted from the soil by the well-manured normal plant? This crust should then be considered as the mere extension of the seed to a larger bulk; and as the seed contains what is necessary to feed germination, and even to form a complete plant, though limited in weight to the extent of the food contained in the seed, so the seed being increased to any required number of times its size and weight by the agglomeration of substances, such as phosphates, nitrates and silicates, would be enabled to supply to the growing plants the necessary elements of normal growth and maturity."

We, irresistibly, have the most conclusive reasons for yielding our convictions, (against long established prejudices,) in favor of the *homeopathic* treatment of the animal races, but we are not so ready to admit the truth of that theory when applied to the grand system of agriculture.

Modern chemistry has turned the heads of some of the most distinguished teachers almost exclusively in favor of the mineral theory of manuring, but practice refuses to sanction their doctrines, and they have been compelled to recede. Nature imparts to the seed all the elements necessary for the development and support of the embryo plant until it enters fully into the outer world, where, as for the animal kingdom, she has supplied the means of future support in another form. As well might the egg be supplied with the food for the future chick, as to suppose it is possible to envelop the seed with all the necessary elements for the future growth and maturity of the plant. It may be said, the case is not strictly analogous, but it is sufficiently so to meet the question under consideration. To envelope a grain of Indian corn with all the mineral materials that chemistry points out as contained in the most perfectly developed stalk and grain, is it probable that this would meet the demands of nature during the whole period of the growth of the plant, in a soil entirely destitute of the food of plants? The great Architect of the earth has, with the same wisdom, imparted to all soils suited to cultivation, all the necessary food to sustain the growing plant, as well as to the seed to nourish and support the infant germ. A grain of corn, planted in a suitable soil, under favorable circumstance, will extend its minute rootlets four, and perhaps six or more feet from the base of the plant. Each of these rootlets terminate with a *mouth*, through which the food is conveyed to sustain the growing plant. Nature has wisely distributed this food throughout the soil, to encourage the plant to extend in all directions these numerous branching roots—first, for its sustenance, and second, to afford mechanical support to the plant itself. If all the food by which the future plant is to be sustained was to encase the seed when planted, and the soil be as barren as "calcined quartz sand," there would be no extension of roots, and they would be chiefly confined to the location of the seed and manure, and there would be nothing to hold or support the plant in its position. These facts seem sufficiently conclusive to overthrow the "incrustation" theory.

It is a dangerous doctrine to teach that land

can long produce crops without manure. Follow the incrustation theory, which is equivalent to no manure, and after the vegetable matter naturally contained in the soil becomes exhausted, the soil becomes inert, dead and unproductive. All heavy soils requere vegetable substances, not only for manure to sustain the growing crops, but to improve their mechanical condition to render them productive.

We hope Mons. D' Illiers will give the world the result of his experiments at the close of the season, both in England and France.

REPORT OF THE GEOLOGICAL SURVEY OF KENTUCKY.

Through the agency of Robert W. Scott, Esq., late Secretary of the Kentucky State Agricultural Society, we have been favored with the 2d and 3d volumes of this Report. This survey, which is making slow progress, indicates that Kentucky, in an agricultural point of view, is not only one of the most fertile, but among the richest States in mineral wealth in the Union. The survey of the State was commenced four years ago, with an appropriation by the State legislature of the pitiful sum of five thousand dollars a year for two years, to develop the wealth of hundreds of millions of treasure which has lain buried beneath the soil from the dawn of creation, inviting enterprise and industry to render it available to the world. Had this survey been authorized twenty years ago, with a respectable appropriation, adequate to the importance and magnitude of the object, it would have added thousands of dollars, indirectly, to the State treasury, and millions more to the wealth and industry of the people. In a letter recently received from one of the gentlemen interested in the survey, he says: "The survey is very far from being completed, and only a fair *beginning* has been made as to the development of our mineral wealth." For the second term of two years. $10,000 a year was voted by the legislature, for the continuation of this great work, and at the last session $25,000 more was appropriated for the two years to come, and this appropriation is to cover all the printing, and other contingent expences, requiring half a generation to accomplish what should have been done in three years. In the act of appropriation *five thousand* copies of each volume of the report were ordered to be printed, and forty copies were voted to each member of both Houses, for distribution. This leaves less than one thousand copies for distribution in other ways.

The first volume, even at this early period in the progress of the work, is now entirely exhausted—not a copy can be had. Enough should have been printed, to enable our own citizens at large to know something of the resources of the State, with an ample supply at the command of the State officers, for distribution and *exchange with other States* and societies for similar works. Such contracted and niggardly legislation is unworthy the great State of Kentucky, and a disgrace to the intelligence and enterprise of her people.

But to the work itself. The world is familiar with the ability of Dr. Owen as a geologist. Of the manner in which he has performed his duties, we need not speak. Of his assistants, Dr. Robert Peter, in the chemical department, and Sidney S. Lyon, topographical assistant, the State may well be proud. Notwithstanding the small amount appropriated for this work, Dr. Peter, with his characteristic diligence, has already completed and reported on three hundred and seventy-five analysese of various *ores*, *coals*, *stones* and *slates*, *limes*, *mineral waters*, *salts*, and *soils*. His labors in the department of agricultural geology are of the most interesting and valuable character to the farmers of the State. Besides what he has previously done, during the last two seasons upwards of one hundred and eighty specimens of soils have been collected and nearly all submitted to analysis. The facts brought to light in this department of the work should not be limited to the few who may be so fortunate as to obtain copies of the report, but should be printed in some form so as to beceme the common property of the farmers at large. We shall take an early opportunity to refer at some length to the subject, and give our readers the benefit of some of the most valuable portions of this report on the soils of the State.

The illustrations and descriptions of some new species of organic remains, by Mr. Lyon, found in various portions of the State, evince the highest degree of artistic skill, as well as a clear knowledge of the science of geology for which Mr. L. is very justly distinguished.

The mechanical execution of these volumes is also creditable to Mr. Hodges, the public printer. It is printed on substantial, white paper, in bold, clear type, with a broad margin—qualities not always to be found in public jobs of this kind.

The State of New York Regarded in the Light of an Experimental Farm.

We have frequently taken occasion to allude to the universal deterioration of the soil under cultivation, upon the system now practiced by a large proportion of farmers—that is, continual cropping without restoring to the land, in manure, in some form, an equivalent for that which has been taken from it in the crops harvested and sold.

The best farming portions of New York are comparatively new. Much of it that now yields the largest crops of wheat, corn, &c., was a wilderness within the memory of the writer, and yet with more regard to manuring than is practiced by our western farmers, the yield per acre is materially diminished with each revolving year. A tangible illustration of this is presented in the *Country Gentleman*, by Dr. Daniel Lee, formerly an agricultural editor in that State, but now a Professor in the University of Georgia, Athens. Dr. Lee predicates his calculations upon a comparison of the census returns of 1845 and 1855, embracing a period of ten years, and notwithstanding the advantages gained in increased crops by improved cultivation and in the use of improved implements, which it cannot be denied is very great, yet the falling off in the acreable yield of every leading crop except rye, is alarming. The census of 1855 exhibits the corn crop of the previous year at only 21.02 bushels per acre, on an average; while that of 1844 yielded an average of 24.75 bushels, notwithstanding deeper tillage and better husbandry has made greater progress and improvement within the last ten years than in any former period of twice that time. Taking the whole area of land planted to this crop in the State, the calculation shows a decline in the product, of 1,600,000 bushels. In the same period of ten years, the yield of wheat has fallen off about one bushel and three-quarters per acre. The average yield in the State, according to the last census, was but 11.43 bushels per acre.—Potatoes show a greater decline—about 25 per cent, or from 92 1-2 bushels to less than 70 bushels per acre. Buckwheat also shows a material decline, while rye alone indicates a slight increase, which is attributed to the fact that some of the better land was sown to this crop in the place of wheat.

The writer, in quite an elaborate article on this subject, concludes with the following remarks, which should command the serious attention of every farmer: "There are grave errors in going over with the plow so large a surface, to the serious injury of the farming lands, not only of New York, but of all other States in the Union, for the practice is universal in this country. Feeling deeply the importance of the principle involved, which applies to agriculture everywhere, I respectfully ask thinking men to consider the following facts:

"1. When vegetable mould is consumed by tillage, it cannot be restored again except at considerable expence, either in labor or in time, by the rest of the field.

"2. Where latent elements of fertility, such as phosphoric and sulphuric acids, potash, soda, lime and magnesia, locked up in insoluble compounds, are first rendered soluble, and then removed from the soil, either in crops, or by moving water passing over and through the earth cultivated, the sterility of the land in that condition is much worse than it is where these latent resources remain intact.

"3. The natural laws which govern the decrease of fruitfulness, are at all times inexorable; and therefore, it is the part of wisdom in the good husbandman, not only to study and learn them, but carefully to obey them.

"4. Farmers ought to remember that Nature never plows the ground when she produces her largest and oldest forest trees, which sometimes grow every year for ten centuries, and every year extract from the same soil soluble salts of potash, lime, magnesia, iron and soda, which are deposited in the cells of the tree, there to remain perchance for a thousand years; and yet the soil is *not* exhausted by this millennial draft on its resources."

This process of depletion that is taking place in the soil of the State of New York, is going on at a still more rapid rate in every State in the West. It is the clearest conviction of this fact, from the experience of thirty years in the State of New York and of more than twenty years in the West, that impels us so frequently and with so much earnestness, to urge upon our farmers the importance of more carefully husbanding every material upon the farm that can be converted into manure and applying it to the soil. System and care in cultivation, with a due regard to a proper rotation of crops, connected with the rearing and fattening of farm animals, which, in the main will be found the most profitable course with all, are the means to be employed to arrest this evil.

The experience of the old world as well as of all the older States of America, should teach us lessons on this point that should at once stay the progress of this exhausting system.

TWO WEEKS IN THE COUNTRY.

With the view to brace up the physical man, and to witness the progress of agriculture in the various departments, we spent a considerable part of last month in the counties of Fayette, Woodford, Mercer and Boyle, Ky.

At the close of April and the opening of May we have never seen the country present a more beautiful aspect, nor the crops look more promising. Wheat, which in the early part of April presented rather too vigorous an appearance, for that period, has been somewhat checked in its growth and improved in permanent strength by the cool weather that followed. On the 27th of the month there was a general frost, which, in the early part of the night previous, threatened the destruction of the fruit crop, but an unlooked for, favorable change, after midnight dispelled all fear for the time being, and resulted only in slight injury to the few open strawberry blossoms. In some more exposed situations the damage may have been greater to some more tender fruits.

While in Lexington, we spent several hours in the laboratory of Dr. Robert Peter, who is engaged as chemical assistant to the Kentucky State Geological survey. Dr. Peter is still busily employed in analyzing the various soils, minerals, ores, crops, &c., and preparing a fund of valuable information to be contained in the future volumes of the Geological reports of the State.

As an Analytical chemist, we venture to assert that Dr. Peter has no superior, if an equal, in our country. So completely has he reduced his operations in the laboratory to system, and so untiring is he in his devotion to that branch of science that he accomplishes more labor in one month than many who are regarded as distinguished chemists do in six months. We regret that Kentucky has not been more true to her own great interests, and long since established an agricultural college and tendered to him a situation which he is so well qualified to fill with honor to himself and profit to the State. But for his extreme native modesty, his worth would be more widely known, and if he would consent to leave his present position he would soon be called upon to fill a professorship in some of the Agricultural colleges now going into operation, which would afford him, not only a more satisfactory field for investigation, but one which, in a pecuniary point of view, would be adequate to his valuable services.

Leaving Fayette, we spent a week or two at Pleasant Hill, in Mercer county. This village is entirely owned and occupied by the society called "Shakers." So systematic and perfect is everything connected with the farming, manufacturing and domestic operations of this people that we always sojourn there with pleasure, and leave with regret. There are many things connected with the farming and fruit growing operations of this institution, worthy of notice and imitation, but for the present we must chiefly confine our remarks to the stock, dairy and fruit growing.

Short Horns and Dairy Stock.—The farm owned by this society contains between five and six thousand acres of land. The later purchases of land are more remote from the village and are more level and better adapted to tillage than the original tract, which is now chiefly employed in grazing and stock raising. The stock is chiefly confined to cattle and sheep, with a few hogs. The cattle consist of about one thousand head, all of the Short Horn or Durham breed, and as a dairy stock they have no equal in the State; this being a prominent quality which is cultivated and improved as one of the highest importance, not only for dairy purposes, but because it is a fact unquestionable, *that the permanence of all the other superior qualities of this noble breed of animals are greatly dependent on the milking properties of the dams.* In order to secure the finest dairy and fattening qualities, the Shakers have been careful to procure their breeding animals from the Collings' & Bates stock, (of England,) so long and justly celebrated for these leading and most valuable qualities, and from the appearance of the animals we saw, they have lost nothing down to the present generation in these respects. No heifer is sold from this society before its milking qualities are proven, unless the signs compare favorably with Guenon's and other known tests. All others are turned out for beef.

We have said before, and we again assert, that the course pursued by some of the breeders of Short Horns in this country, in not regularly milking their best breeding cows, after the calves have been supplied, with the view to increase the secretions of milk, and to promote the milking qualities generally, rather than suddenly drying off the milk of the best cows, as many do, results in permanent injury, not only to the milking properties but to the other valuable qualities of the future progeny. These things are overlooked by our wealthy farmers, because the milk is turned to so little account, which is not the case with the English breeders.

Fruit Growing.—This is one of the best situations for successful fruit growing that we have visited in the State. The land is elevated and there is less liability to failure from frosts than in most other sections in the same latitude. Every variety of fruit is cultivated here. Of strawberries there are a considerable number of acres. The quantity preserved last year was about five tons, which is probably less than will be produced the present season. Raspberries follow next, of which there is almost every variety, occupying a large space of ground. But the success in the cherry and the plum is without a parallel in any other portion of the State. Notwithstanding a large proportion of some of the most productive varieties of the cherry were blasted by the continued cold rains that occurred just at the period of blossoming, still the aggregate crop will be several hundred bushels; not only do the common verieties succeed well here, but the sweet cherries, when trained with branches near the ground, as a protection to the stem from the effects of the sun, grow well also.

All the most valuable kinds of pears are also cultivated here, and the prospect now is favorable for an immense crop. Apples are the standard fruit crop, and the extensive orchards seldom fail to furnish a supply. Either from the great elevation, or from some favorable composition of the soil, some of the Northern varieties of the apple that fail to succeed in northern Kentucky and Southern Ohio seem to prosper well here.

Remedy for the Curculio.—Among all the other varieties of fruit there is a large collection of plums, embracing all the better kinds, and these succeed perfectly, notwithstanding the great destruction of this choice fruit by the *curculio* in other gardens, but the remedy here is simple and of easy application anywhere.—The main plum orchard is situated near two of the principal dwellings and contains about six acres. In this enclosure there are about one thousand fowls, all of the Shanghai breeds. If the price of plums is "eternal vigilance," that vigilance is most faithfully exercised here by this army of celestials. Besides the valuable service rendered in this capacity by these faithful birds, their great numbers and majestic bearing are very suggestive of poached eggs and spring chickens.

Mulching.—This valuable practice is carried on here to a greater extent than we have ever witnessed anywhere else. Tomatoes receive no cultivation during the season, after the plants are set; the ground is covered five or six inches deep with straw, which keeps the soil moist and secures a steady, uniform growth, with great productiveness, entirely keeping down the weeds. The fruit is kept from the ground and is always clean and not liable to rot, as when grown in the ordinary way. Raspberry plants and newly planted fruit trees are also treated in the same manner. All the waste straw and litter made upon the farm is used in this way, with the double advantage of a complete mulch and a constant improvement of the soil. Another article is used for the same purpose on asparagus beds, viz: immature broom corn seed, of which large quantities are annually grown. Although it keeps down the grass and weeds and affords a warm, clean covering for the beds, we do not so much approve of its use for that purpose, unless special care is taken to manure the beds with something more effectual and better suited to the gross appetite of this plant.

Well Preserved Potatoes.—If the public generally, who are confined to such miserable, sprouted, watery potatoes as are usually found in our markets, could indulge in a single meal of those that have been stored from the time of digging to the present, in *cool, dry houses, above ground*, we think one universal petition would go forth to the farmers to abandon the ruinous method of keeping potatoes, in this climate, as is the usual custom, in the open field, subject to all the heating, sprouting process of a hot bed, and in future build houses for their preservation and storage, which may also claim the additional, important advantage of greater economy.

HETTIE HAYFIELD.—During our wanderings we spent a day at the hospitable mansion of Hettie Hayfield. From the great number of valuable hints and suggestions to housekeepers, contained in late numbers of the *Valley Farmer*, from the pen of this distinguished and intelligent lady, the question has frequently been asked us, "*Who* is Hettie Hayfield?" We do not know that we are at liberty to answer this question; but we will most cheerfully tell *what* she is, and that our readers have long since inferred. She is a model house-keeper, which in these degenerate times are seldom met with.—In the words of the wise man of old, "She looketh well to the ways of her household, and eateth not the bread of idleness. Her children rise up and call her blessed; her husband also, and he praiseth her."

Face of the Country south of the Kentucky

River.—There is a wide extent of country running from the Kentucky river, embracing Mercer, Boyle, and as far beyond as we traveled, that for fertility and beauty of landscape, which at this interesting season of the year, far exceeded our expectations, and as a farming country, is not surpassed, if equalled, by any other that we remember ever to have traveled over; indeed we think it can hardly be equalled by any other State or country. We visited numerous farms and plantations, a further notice of which we must defer for another occasion.

STEAM PLOWING AND PULVERIZATION OF THE SOIL.

At a late meeting of the American Institute Farmer's Club, New York, the secretary, Judge Meigs, read some remarks from the London Farmers' Magazine, on the subject of a newly patented steam machine for pulverizing the soil, upon which a discussion arose among the members of the club upon the most effectual means of pulverizing the soil. Mr. Fowler, an inventor of a steam plow, admitted the superiority of hand labor in the use of the spade in thoroughly pulverizing the soil, and stated that this could be done for $3 00 per acre.

Mr. Fuller, horticulturist, of Brooklyn, stated that he had proved the advantage and economy of hand labor, over horse machines now in use, in affording the most thorough preparation of the soil for trees.

Mr. Pardee said it would be impossible for our market gardeners to pay the rent they do, if it was not for the advantage to the soil of hand-labor. It is absolutely necessary to pulverize the soil for many vegetables, finer than can be done by horse power.

We introduce a portion of this discussion, not that we concur in the views expressed in regard to the advantage of hand labor over that of machinery, for we believe in the progressive movement of the age, and that nearly all of the labor of the farm and garden will ultimately be performed with the aid of machinery, and where that is now lacking in its perfect adaptation to this end, the inventive powers of our countrymen will overcome present obstacles until the head and hands of the farmer will only be required to manage and guide machinery in the use of the spade, as in cutting grain, threshing, &c., but because it shows from the experience of practical men the advantages of thoroughly pulverizing the soil.

CHINESE HEMP.

We have before spoken of the superiority of the Chinese hemp over the variety commonly cultivated in this country. We know of no new variety of vegetable production that presents such marked superiority over kinds before known to us. We visited the first extensive field of it grown by Mr. Vance, before it was generally made known to the public. In our statement of it, we were particularly guarded, lest it should be taken as an exageration, and lead the public to place an undue estimation upon it and lead to final disappointment as to its value, which is so frequently the case with the introduction of new things of the kind. But in this instance, so striking was the contrast between the Chinese hemp, growing upon land so *washed and worn* that it would no longer produce the common hemp, it required only to be seen to convince the most skeptical as to its value. We are informed that in some instances where it has been introduced into the rich soil of Missouri, the result has not proved so satisfactory. On worn land, such as we have described, its growth is ample; indeed, it grows on such land in Kentucky so large that it is difficult to handle it, and this may explain the secret of the want of like success in Missouri—it has been put upon too rich land. Will not some of our friends try it on old, worn land?

We find in the *Shelby* (Ky.,) *News*, the following account of it from Messrs. Allen & Co., who we believe are hemp manufacturers, which we publish for the benefit of our hemp growing friends in Missouri:

To the Editor of the Shelby News:

Mr. Middleton:—With your permission of the use of your columns, we will give your hemp growing readers a few items in regard to China Hemp.

When this new seed was first introduced, some two years since, by Mr. Vance, of Woodford county, hemp growers of Kentucky were rather disposed to regard it as a humbug,—many of them having just been humbugged to the amount of two to five hundred dollars, by experimenting with Russia hemp seed, which, from causes not as yet explained by the importing company, —prove a total failure. This, with the seemingly high prices and scarcity of seed. $40 per bushel, and only a small amount to be had at that,—has materially retarded its introduction. From the information we have of this new variety, we are fully satisfied, that it must eventually supercede all varieties hitherto introduced. Having, during the present month, manufactured. and examined closely, samples of this hemp, we find—compared with other hemp—the lint to be more harsh—coarse, yet heavy and

lengthy, giving good gloss, after being manufactured; also producing less tow, both at hackle and break; and for rope purposes, we consider it equal to other varieties. For bagging and twine purposes, where a soft silken article is preferable, it will not, perhaps, answer so well.

The greatest benefit to the grower is in the largely increased yield per acre,—yielding double, and even treble, the amount of the old variety,—making it a more profitable crop than "King Cotton" itself. We have reports from a number of farmers who have experimented with it the past season. Their reports of product per acre vary from 900 to 1400 lbs; and, in one instance 1700 lbs were weighed from *less* than one acre,—the correctness of which cannot be doubted. The next greatest benefit to be derived from its adoption is, the greater certainty of good crops. The long time—five months—during which it is maturing, gives it the advantage of both spring and summer rains; nor does a dry spring preclude the hope of a good yield; whereas with the old variety you must have spring showers, or no crop; as it matures in about three months.

The seed should be sown as early after 20th of March as the ground will admit. Light freezes or frosts do not injure it. It ripens in September, after the heat of sunburning days is past,—thereby doing away with the necessity of stacking and spreading, which is a heavy item in hemp culture.

There is more wood in the stalks—making it harder to break; but when once broken or cracked, it is more easily cleaned than the old variety, the herds falling out freely, in long pieces. The seed is something smaller than the old variety,—requiring less per acre. In cultivating for seed the yield is not so large by one third as the old kind; and it is liable to be caught by early fall frosts,—ripening very late.

If the hemp growers of Shelby county duly appreciated the many advantages attributed to this species of hemp, they would export two millions pounds, instead of the one million which is now exported, and from the same number of acres now cultivated; or exporting the same amount, they would have one thousand acres for culture of something else,—about two thousand acres being now cultivated for the one million pounds.

Yours, truly,
ALLEN & Co.

CUTTING AND CURING CLOVER HAY.

No hay is liable to so great injury from exposure to sun and rain in curing, as that made from clover. If the leaves become dry they fall off and waste a most valuable part of the crop. Clover should never be exposed to the sun longer than is necessary to expel the external moisture; it should then be put into small cocks and cured by sweating. Fair weather is not more desirable in making any kind of hay than that from clover. Rains, long continued, will nearly ruin the quality of the hay, whether it falls upon it in the cock or in the swath. After it has been exposed to the sun four or five hours it should be put up in light, small cocks, of 60 or 100 lbs; in this way it will generally cure sufficient in two or three days to haul in; but before it is loaded the cocks should be carefully turned over and opened and exposed to the sun and air for a few hours, when it may be stacked or put in the barn without the loss of any of the finer portions of it. If put up in larger cocks, longer time will be required to cure it and the liability to injury from rain increased. The hay will be improved and the tendency to fermentation diminished by the application of two or three quarts of salt to each ton, mingled through it as it is unloaded. Some apply more salt, but too large a quantity is injurious to the stock. No more salt should be applied to the hay than the appetite of the animals would crave while eating it, provided no salt was applied. Clover cured in this way is sweet, bright and healthful to either cattle or horses, but as it is too frequently cured—dried to death in the sun, exposed to the rain and dews, it loses all the finer portions of it, and but a blackened mass of stems remains.

PRODUCTION AND CONSUMPTION.

The whole world consumes, but only a portion of it produces. The consumers are on the increase; the producers are on the decrease; so the world is getting more and more away from the true practice. Every man and woman ought to be a producer. Every one should make something grow. There are many drones in society who eat, wear and destroy and yet produce nothing. They neither produce food, raiment, shelter, thought, moral influence, or health or happiness in society. For such, others live and labor. They are moths, eating up the productions of others. They are pestilential fires, consuming the wealth and work of others. They are drones, living on food and luxuries they have neither made nor earned. They are leeches sucking out the blood and health of others. They are robbers on society. All such are to be counted as worse then useless people. It is the moral duty of every one to do something for the benefit of the world, to make in some way something that shall yield the world as much as he consumes.

Farmers, mechanics, and merchants doing a righteous business of exchange, teachers, philanthropists, writers, who give the world a good literature, are to be counted as the leading producers. There are some who produce evil things. They are worse than the drones who consume and produce nothing. Every individual should be ambitious of producing something good and useful.

[Written for the Valley Farmer.]

CLOVER SEED.

EDITORS VALLEY FARMER.—I owe you an apology for not answering, at an earlier day, your favor of the 2nd inst., in regard to the method practiced in this section, of cutting clover, threshing off the heads, and hulling and cleaning the seeds. I have only to say that my time has been so thoroughly occupied that I have found it impossible, until now, to comply with your request.

Introductory to any remarks upon special inquiries, allow me to call your attention to the cultivation of a species of clover, in this section, which, from the most thorough inquiries I have been able to make, has been very sparingly introduced into other parts of the State, and in fact seems to be confined to some three or four counties in the interior, viz:—Washington, Marion, Lincoln and Boyle counties—a red clover, very superior to the kind in general cultivation, by no possibility a humbug, and if generally known, would doubtless be universally cultivated. It is called in this section, "Saplin, or Giant Clover," and was introduced into cultivation here, about the year 1848, by the Rev. John Sandusky and Eli Adams, practical farmers of Marion county. It was brought from Maryland.

The Saplin or Giant clover is distinguished from the ordinary red clover by the size and height of its stalks, as they are as large again and grow from a foot to eighteen inches on an average, higher; it is of more rapid growth in the spring; will bear pasturing earlier, but does not bloom as early by three or four weeks, consequently better adapted to be cultivated with timothy. The seeds of the giant clover are smaller than the common, and it usually produces from two and a half to three bushels of seed per acre. I inclose you a small parcel of seed that you may make an experiment with it. The seed of this clover sells readily at from $8 to $10 per bushel, and is still selling this season at $8, common clover seed at $5 in this neighborhood.

I will now address myself to the matters of inquiry in your note. Our farmers usually pasture their clover until about the 10th of June, when stock is turned off, and the second or seed crop is allowed to grow. As soon as the seed is sufficiently mature it is cut down with the ordinary mowing scythe—a very light labor, two or three hands being able to cut, in good time, between fifty and a hundred acres; in fact, a distinguished farmer in Marion county, now dead—the late James C. McElroy—has been known to cut a hundred acres, in one season, with two hands, and these hands consisting of a negro woman and a half grown boy, and in that year he sold the seed thus saved for $1000—seed being low.

The mode practiced in getting off the heads is as follows: A location is selected near the middle of the clover field, and a treading floor prepared in the usual way; (it won't do to work with it in barns, on account of the dust;) a team is then set at work, hauling in the straw to the treading yard, where one hand, a boy and two horses, get off the heads as fast as it can be hauled in; as the heads are thus separated, they are thrown up into a kind of stack in the middle of the floor, until the process is completed.

The next step after separating the heads from the straw, is to tread out the seed; and here, up to this time, has been with us the tug of war. All the horses that the treading yard will hold are brought into requisition—say from eight to ten, and in the hot sunshine, almost smothered in dust, the laborious farmer finds at the winding up, that he has succeeded in separating about five bushels of seed a day. A common wheat fan and meal sifter finishes the operation.

An experiment made this winter, however, with my "Ralston Thresher," bids fair to inaugerate a new mode of separating the seed from the hull. A neighbor of mine, Col. C. F. Bosley, of this county, had cut and reduced to this last process a large crop of clover, and despairing of success, in separating the seed from the hull by the treading floor, had made several unsuccessful attempts to buy a regular clover huller and cleaner. The winter season was on him and he was about to lose his whole crop of seed, when at my suggestion my thresher was tried; this we did by stopping the elevator and upper fan and allowing the seed to escape at the chess spout. We set the horses to work; the clover hulls were in a very bad state, having been exposed to snow and rain, during the greater part of the winter, and yet by running them through the machine some to or three times we cleaned about fifteen bushels a day; it was pronounced a perfect success by all who witnessed it, and the conclusion was arrived at, that we could easily clean, at the proper time of the year, 20 bushels per day. Whether this machine will answer to separate the hulls from the straw we don't as yet know. One thing is certain, however, its success in the most difficult, and in truth, only formidable part of the labor, has reduced the process of saving clover seed down to a matter of but little difficulty, compared with what it has been heretofore.

Recommending this subject to the attention of gentlemen of larger experience, and more ability to treat it, I close by submitting this hurriedly and imperfectly prepared article to your kind considerations. Yours,

JAS. P. BARBOUR.

Springfield, Washington Co., Ky.

Mr. Barbour has our thanks for the information he has given. Clover is an important crop and should form one in the rotation on every farm. An immense quantity of clover seed is sown every year in Kentucky, and but few farmers have ever attempted to gather the seed. There is no necessity for going to Ohio and Pennsylvania to buy clover seed, when it can as well be grown at home. Ohio supplies all of her own farmers with seed and sells many thousands of bushels annually besides, and there is no good reason why Kentucky should not do as well.

We have induced manufacturers of clover machines to send specimens of them to this State, with the view to induce our farmers to become independent of other States in this product. The fact that Ralston's Thresher proves an efficient machine for hulling clover as well as threshing wheat, is an important consideration. The great drawback with our farmers, heretofore, in the business of saving of clover seed, has been the high price of clover machines and a clear knowledge of their use. We have no doubt that Ralston's thresher will answer every purpose for removing the heads from the stems, as well as for hulling the seed. In the eastern States the seed is generally threshed from the straw with the ordinary wheat thresher, which accomplishes the object in a much more cleanly and thorough manner than by treading it out with horses.

[For the Valley Farmer.]

THE ORGANIC AND INORGANIC CREATION.

There is no error so great—none calculated to do more harm and lead us farther from truth in all our views of the Natural laws of the Universe, than the *idea of two worlds of distinct origin*.

The germinal power, the generative aequivoca or spontanea of the organic world, is cousidered as born of heaven, while the so called inorganic world is considered dead without life, on its own account. Yet it is an incontrovertable axiom, that there is nothing existing on earth which is not exclusively earth-born, always admitting the benign influence of the glorious sun upon our dark orb. So-called organic bodies and inorganic matter are nothing but combinations of earthy substances in different stages of development, as they appear or not appear to our senses or conceptions. Organic life is but the result of properties of inorganic matter—one verging continually into the other—quantitatively, qualitatively, thermally, numerically built up, and periodically and chemically dissolved again into the original substances whence it sprang—a certain, unvarying result of inherent properties of mundane matter, having the power to individualize, to *create*, by virtue of millions of combinations, founded in the affinities of the elements—of which we know already more than sixty—*a cycle beginning and ending in itself*.

That same creation is still going on under our own eyes, without diminution, end or rest. To be born or to die, are periods, as we mark them, as they appear to our understanding. Nothing had a beginning, nor will end but in changes. There is neither positive life nor positive death in nature, which works by imperceptibly slow degrees. Millions of years of time are but a day. The history of the human race is certainly too short to note changes by dint of time eternal. Even in our historical time new types of the animal and vegetable kingdoms have been born into life; nay, spring up daily under our eyes, by amalgamation, culture, nourishment and climatical influences. Witness our domestic animals, fruits and vegetables, systematically re-created by the reflection and experiments of man. Instance the Merino sheep, the Durham cattle, both produced within a century, having already become *new* and *distinct* types.

There is conclusive evidence without end in geology, to establish the positive fact that, various distinct creations were born into life during long intervals; that fire and water were powerful agents to build up and destroy; that the present organic creation on our globe is of very recent date; that each creation produced the first germs of life, or the generatea aequivoca of all organic beings by virtue of its own inherent properties. The powerful agent of high normal heat, one of the very life-conditions of incubation, was formally inherent in the earth, and uniform, under the poles as under the equator—heat independent of the sun, which only gave the needful light—also essential to life. The consequent cooling down of mother earth, might alone account for the first *germinal power* not now springing directly out of her lap, as they did in former creations. All organic life is produced, built up and sustained by inorganic matter, and constantly resolves into the same for the purpose of *rejuvenating refining* and *perfecting*, until the time when a still higher creation than the present may be matured, which may require millions of years to bring about; for nature never stands still, but is unceasingly progressing.

The first period of creation brought forth mosses and animals without bones, as shells, bivalves and polypes. The subsequent stone coal formation, the coniferes ferns, calamites and fishes. The trias formation, a greater variety of those species of plants, fishes, reptiles and birds. The volatic period, many varieties of fucoids and cycadees and a greater variety of reptiles. The chalk formation brings the first true crocodile, salamanders and still greater varieties of plants. In the tertiary period, for the first time, the mammalia appear on earth, with a higher order of plants, approaching more and more our present creation.—When at last, in the deluvial time, the first human beings are born into life, with the present high order of domestic animals, and fruits, and flowers, which last creation supercedes and crowns all former ones. Why may not others, more perfect succeed the present? Mother earth is composed of nothing but life, producing life everlastingly, unlimited in its various forms and qualities, out of her own lap. Men die, but mankind lives to be refined by the efforts of immense periods of time, physically, mentally and morally, with the advantage of the labors of all former generations to rest upon as a means for still higher perfection.

E. MALLINCKRODT.

ST. LOUIS CO. MO.

HINTS TO FARMERS' BOYS.

It will be hardly disputed that the farm is the nursery not only of virtue, but of genius. If it were possible to assemble together all the plow boys in this country, so as to behold them at one view, the spectator would see before him nine-tenths of the orators and statesmen, who, twenty years hence, will sway the public mind of America. How important then that farmers should commence the education of their boys on a wide basis. Fifty years ago farmers educated their boys at home till they reached the age of maturity, and having thus formed temperate and industrious habits, combined with a hungering and thirsting for knowledge, they went out among men and made their mark. When they entered college they went straight forward, and were not only able to pass a formal examination, but they knew all that they had learned. Many of the boys of that day became great men, towering above their town-bred contemporaries, like mighty oaks surrounded by a forest of thorns.

But the rule has been reversed and the young gentleman of to-day, almost before he is prepared to quit the nursery, is taken from the district school and sent to an academy to study "ologies." We are not in favor of returning to the old system of schools, but we are decidedly opposed to this manufacturing men out of mere children. Let them first become boys, and let them continue to be boys till they are fit to take the place of men. Nothing is ever gained by premature development.

But this question in its broadest extent, embraces too much ground for our time and space. We shall content ourselves with alluding to a single point. The great defect in American orators is not a want of ideas and action, but grace, logic and language. On the stump, at the bar, in the pulpit, even in the national Senate, it is not uncommon to hear the English language murdered, and sometimes to hear expressions which should never be used outside of bar rooms. Nothing is so disgusting to good taste as cant and slang. And the insufferable staleness and hypocrisy of the Fourth of July oration style—what word of contempt shall we use to express our abhorrence of it.

Boys, in your debating clubs, and you should all belong to them, cast aside the puerile vulgarity of the mere politician. Constantly bear in mind that the American people are superior to most of their orators, and this is the reason that the harangues of the latter do not now affect an audience as the speeches of Demosthenes stirred an Athenian assembly. The Athenians, though very impressible, were eminently critical and fastidious, and it was necessary that the Athenian orator should speak the purest Attic, should be elegant and perspicuous in his style, orderly and logical in his method, and graceful in his delivery, if he would escape being voted an ignoramus, a blunderer, and a bore.

It is a mistake to imagine that assemblies at this day could not be impressed and swayed as Demosthenes and Cicero impressed and swayed Athenian and Roman audiences. But to accomplish this our public speakers must elevate themselves to occupy a relation to their hearers similar to that which those celebrated orators held in addressing an assembly of acute and critical Athenians, or an audience of grave and thoughtful Roman Senators. Therein lies the great desideratum. Upon this hint our American orators should act. The young men who most carefully study this point, will be most successful and most popular.—*Prairie Farmer.*

Nitrogen--- its Utility.

Nearly every person is aware that a watch without a regulator would be of very little use; sometimes it would be to slow, and although it would go, it would not keep time. Those who have seen a steam engine may have noticed a part shaped thus, A, with two balls twirling around on the end of it—this is the regulator. The power of steam was known long before Watt's great invention, but there was no method of regulating it: for sometimes it would run like a mill, and at others it would go as slowly as the pendulum of a large clock. Hence we clearly see the value of a mechanical regulator, and from it we can judge by analogy of the utility of a chemical regulator—such is nitrogen. The etherial fluid surrounding the earth, which we call air, is the source of a terrific power, oxygen, and were it not for the regulator (nitrogen) that is mixed with it all the operations of nature which are dependant upon air, would go at a velocity so frightful as to defy description. If a candle were lighted, it would instantly be burned out; if a fire were lighted in a grate, not only the fuel, but the whole iron range, bars, trivet and all, would be consumed. Life, instead of extending to three score years and ten, would probably terminate in a week. We can thus perceive how much we are indebted to the Divine controller of the universe, who in giving the air the power (oxygen) gave also the regulator (nitrogen). The air contains four parts of nitrogen to one of oxygen, so that when we breathe, we inspire nitrogen in much greater proportion than we do oxygen; yet, singular enough, this gas, nitrogen, has no direct action upon our lives; but it is perfectly inert; and it is this singular quality of nitrogen which renders it so very remarkable. Chemists cannot, by any straitforward process, make it unite with any other substance. It is a perfect "bachelor" or old "maid" among the elements. Nevertheless, it does succumb to some of nature's laws, for when the lighting flashes through the sky, we find nitrogen united with hydrogen. A salt of ammonia is then produced; this the rain brings to the earth; plants absorb it, and animals eat thereof. Finally, we find nitrogen as one of the constituents of animal tissue. True however to its character, nitrogen, the moment it has ceased to be under the influence of the vital principles, endeavors, as it were, to again become free.—[Scientific American.

Stock Raising Department.

Is the Chinese Sugar Cane Poison to Horses and other Animals?

We have seen several statements going the rounds of the papers, to the effect that horses and cattle, in a number of instances have been poisoned by eating the seed of the chinese sugar cane. But the most conclusive cases of the kind are detailed in the *Ohio Farmer*, by W. Pierce, Veterinary Surgeon; in Ravenna, Ohio. The facts as related are substantially these: A farmer in Portage county, Ohio raised a quantity of the Chinese Sugar cane, and saved the seed and blades. In the course of the winter these were fed for two weeks to two valuable horses. Having occasion to go a few miles, the farmer took one of the horses to ride. At first the horse appeared well and playful, but when about a quarter of a mile from home, he became suddenly ill; his head fell, his legs and body were drawn up, his limbs became stiff and greatly bloated, both in body and muscles. He was finally got home, sweating profusely. He remained in this condition during the day. With careful treatment, after twenty four hours, the internal bloating began to subside, but his muscles remained bloated for about five days, and then suddenly subsided, leaving a large swelling high up on the back part of the fore arm. This continued to swell to the size of a gallon, remaining for four weeks, then matterated and discharged, and began to disappear. About an hour after returning with the horse, the owner started for the same place with the other. After proceeding about three-quarters of a mile, he was taken almost precisely as the first.—The commencement, continuation, progress and termination of both, were almost identical. A neighbor of the adjoining farm had a horse that eat the seed and leaves for two or three days, while grinding the stalks. and was similarly affected, for about the same length of time, with swelling in the same manner. Mr. Pierce examined this case on the first of Febuary, and describes the condition of all of them, and concludes by saying—the *seed did not mature, was frosted, and began to mould when fed.*

We have no idea that this grain, when matured and sound, is poison, or in any way injurious to domestic animals, any more than Indian corn or oats. That, and kindred varieties of the millet family, have been cultivated and eaten by man and beast for ages. But any of the cereals that have been wet and become mouldy and in a partial state of decomposition, when dried and fed to cattle or horses, have frequently been known to produce disease and death. We have known a number of instances of the kind, but the precise symptoms we do not now remember. One of our neighbors, some years ago, lost a valuable cow from, being fed on oats that had been wet and become mouldy and partially rotten. And so we have heard of other instances where cattle had been fed on corn in the same condition; and we have no doubt it was from this change that the sugar cane seed had undergone, that caused the mischief in the cases referred to.

COTTON SEED CAKE AS FOOD FOR STOCK.

The immense amount of cotton annually produced in the United States affords a large quantity of cotton seed. The principal use to which the seed is now applied is for manure; to a very limited extent it has been imperfectly prepared and used as food for stock. Linseed cake, from the oil mills, is one of the most nutritious and fattening vegetable substances for cattle and sheep, now known, and is used to a very great extent in England, both on account of its great value for making beef and mutton and for the rich manure that is made from the animals fed on it. The estimation in which it is held in that country, may be inferred from the fact that it is still eagerly sought for in this country for shipment, at an advance of one hundred per cent upon the former price, while the freight and charges for shipment are equal to one hundred per cent more. The comparatively small quantity of it fed in this country, is chiefly by farmers formerly from England, who know its value.

Cotton seed being a product confined exclusively to the Southern States, where but little artificial effort is necesary to fatten farm animals, its value for that purpose has not been duly appreciated and established. In some parts of New York, in Rhode Island and in other States, attempts have recently been made to construct machinery for hulling the seed preparatory to the process of manufacturing oil. One attempt, at least, has proved successful, and an extensive business in the manufacture of the oil, is the result.

In the Annual report of Prof. S. W. Johnson, chemist to the Connecticut State Agricultural Society, speaking of the value of cotton seed

cake, says: "I have examined specimens from the Providence mills, and find that its composition is not inferior to that of the best flax seed cake, and in some points its agricultural value surpasses that of any other kind of oil cake of which I have knowledge, as will appear from the following statement of its composition, compared with that of linseed cake:

	No. I.	No. II.
Water,	6.82	9.23.
Oil,	16.47	12.96.
Albuminous bodies	44.41	28.28.
Mucilaginous and sacharine matters	12.74	34.22.
Fibre,	11.76	9.00.
Ash,	7.80	6.21.
	100.00	100.00.

No. I. Cotton seed cake from Providence mill.

No. II. Average composition of eight samples of American linseed cake.—(Journal of Highland and Ag. Soc., of Scotland, 1855.)

Proffessor Johnson further remarks: "The points of interest before us are, the *nutritive* and *manurial* value of this cake. With reference to both, chemistry and practical results agree in their conclusions. The great value of linseed cake, as an adjunct to hay for fat cattle and milch cows, has long been recognized; and is undeniably traceable, in the main, to three ingredients of the seeds of the oil-yielding plants. The value of food depends upon the quantity of matters it contains, which may be appropriated by the animal which consumes the food. Now, it is proved that the fat of animals is deriveable from the *starch*, *gum* and *sugar*, and more directly and easily from the *oil* of the food. These four substances, are then, the fat-formers. The muscles, nerves and tendons of animals, the fibrine of their blood, and the curd of their milk, are almost identical in composition, and strongly similar in their properties, with matters found in all vegeatbles, but chiefly in such as form the most concentrated food. These *blood* (and *muscle*) *formers* are characterized by containing about 15 1-2 per cent of nitrogen; and hence are called *nitrogenous substances*. Since albumin (white of egg) is the type of these bodies, they are also often designated as the *albuminous bodies*.

"The bony frame-work of the animal owes its solidity to *phosphate of lime*, and this substance must be furnished by the food. A perfect food must supply the animal with these three classes of bodies, and in proper proportions. What proportions are the proper ones, we have at present no means of knowing with accuracy. The ordinary kinds of food for cattle contain a large quantity of vegetable fibre or woody matter, which is more or less indigestible, but which is indispensable to the welfare of herbaceous animals, as their digestive organs are adapted to a bulky and rough food. The addition of a small quantity of food rich in oil and albuminous substances, to the ordinary kinds of feed, has been found highly advantageous in practice. Neither hay alone, nor concentrated food alone, gives the best result. A certain combination of the two presents the most advantages."

For fattening animals and for increasing the yield and quality of the milk, linseed cake has long been held in high estimation. This is to be expected from its composition. The muscle of flesh and the curd of milk are increased in quantity, because the albuminous substances of the linseed constitute an abundant and ready source of them; the fat of the animal and the butter of the milk are increased by the presence in the food of so much oil and mucilaginous matters.

A year or two since, Mr. M'Lagan, of Scotland, reported in the journal of the Highland Society, some trials on the value, as food, of linseed cake, cotton seed cake and bean meal. Analyses I. above, represents the composition of the cotton cake; II. that of the linseed cake. The bean meal has 25 per cent of albuminous matters, but 1 1-2 per cent of oil, and correspondingly more of the bodies that have the same nutrient function as the mucilaginous and sacharine matters. Six animals of nearly equal size and quality were fed during three months in winter, with all the turnips and straw they would eat, in addition, two of them received daily, 4 pounds of linseed cake; two, 4 pounds of bean meal. The animals thrived as well on the cotton seed cake as on the other kinds of food—as shown by their appearance, and by their weight when slaughtered. When linseed cake is fed in a large quantity it purges the animal. The quality of the beef is excellent when the daily dose of oil cake does not exceed six pounds for an animal of 700 pounds. Cases are on record where more than this quantity has spoiled the beef, giving it a *taste like tallow*.

Probably like results would follow excessive feeding with cotton seed cake. In the best cotton districts of India, the cotton seed bears a high value as food for fat cattle. I know of no experiments with it on milch cows, but it is

to be expected that here also, it will have the same effects as linseed cake.

A Bavarian farmer has recently announced that heifers fed for three months before calving, with a little linseed cake in addition to their other fodder, acqure a larger development of the milk vessels, and yield more milk afterward than similar animals fed as usual. Cotton seed cake must have an equally good effect.

On comparing the analysis of cotton seed cake with the average composition of linseed cake, it will be seen that the cotton seed cake is much richer in oil and albuminous matters, than the linseed cake. A correspondingly less quantity will therefore be required. Three pounds of this cotton seed cake are equivalent to four of linseed cake of average quality.

The value of the article in question, as manure, is obviously very considerable. The dung of cattle, &c., fed on it, will be much richer, both in nitrogen and phosphates, than that of animals fed on hay alone. Where stock is kept, probably the best manner of using this cake as a fertilizer, is to feed it to the cattle, and carefully apply the manure they furnish. In this way, whatever is not economized as flesh or fat will be valuable as manure.

In England and on the continent of Europe linseed and cope cake have been used directly as a dressing for the soil, and with results fully equal to what is indicated by their composition. These kinds of cake decompose readily, and their effect is usually finished in one season. Five or six hundred pounds per acre is considered a good application; more is liable to be injurious. It is found that when applied with the seed, these kinds of cake prevent germination, to a considerable degree; but if applied a week or so previous to sowing, this detriment is not encountered.

The cotton seed is often employed in the Southern States, with good effect, as a manure for Indian corn, &c. For manuring purposes it is about one-third richer than linseed cake. Its effects are mostly due to the nitrogen it contains, and therefore are similar to those of guano. It is best used in conjuction with other fertilizers.

The facts set forth in this report are of a most valuable character.

IMPORTATION AND SALE OF LAMAS.

Last season there was a shipment of seventy-two Lamas from a Chilian port to the United States, via. Panama. This effort to introduce these valuable animals into the United States has not proved altogether successful, although the difficulties encountered might have been avoided by better management. The animals were detained three weeks at Panama, waiting a vessel at Aspinwall for New York. And although attended by one of the native shepherds, eighteen or twenty fell victims to snakes, scorpions and other casualties incident to the hottest portion of the year on the Isthmus. The remainder were transported across in the cars and shipped to New York in a vessel, too small to insure an easy and safe passage, while their food, during the voyage, was not the most suitable. The result was, only forty-two of the seventy-two reached New York alive. They were kept in the vicinity of the city during the winter, with the view to improve their condition, previous to offering them at public sale. During this period four of the weakest lambs died, the remainder were offered at public auction on the 20th of March, but as no extended public notice of the proposed sale was given, but few bidders were present, and the prices offered were not such as to satisfy the owners, and the sale was then confined to private bids. Three only were sold which are to be shipped to Australia, as a present to the New South Wales Agricultural Society. It has been intimated that it is likely that the whole number may be shipped in the same direction. We shall regret to see this effort to introduce these animals into our country fail. If once placed upon our hills and mountains they would, no doubt, thrive and flourish as in their native country and add a valuable variety to our domestic animals. The fleece of these at this time is said to be from four to six inches long, and would probably yield ten pounds, although its weight is materially diminished, owing to the hardships they have endured.

The Lama and Alpacca are very similar, differing not more than some of our varieties of sheep, both yield a valuable wool or hair, celebrated for the manufacture of Alpacca cloth.

It is to be regretted that some of our enterprising farmers, from districts best suited to the nature of these animals, could not have been present at the sale and secured enough of them to test their value and adaptation to our country and climate.

Since writing the foregoing, we learn from a New York paper that Mr. R. W. Cameron of New York city has bought these animals, and has shipped them to England.

THE COMPARATIVE VALUE OF THE HORSE AND MULE ON A FARM.

EDITORS OF THE VALLEY FARMER.—In farming one hundred acres of land in a climate where stock has to be kept up six months in the year, would you advise mules or brood mares, taking in view the first cost of the animals, manure, attention, quantity and quality of food, progeny of mares, longevity and liablity to disease, &c? Also are mules subject to the same diseases, and are they to receive the same treatment, when diseased, as horses?

A negro and a mule are generally, in Southern States, placed together upon the farm, and no doubt but the hardihood of the animal has generally proved the adaptability of the too often careless negro as his master, but in a Northern climate, (say Minnesota, for instance,) would your opinion be favorable to the mule, as a substitute for horses or brood mares for the ordinary work upon a small farm?

Presuming you have access to some memoranda and can enlighten us on this subject, upon which I find many are a good deal opinionated, I would beg a chapter on "The comparative value of the Horse and Mule on a Farm," which would oblige many of your neighboring farmers and doubly confer an obligation upon

Yours Respectfully, C. DeM.

Woodlawn Farm, Minnesota.

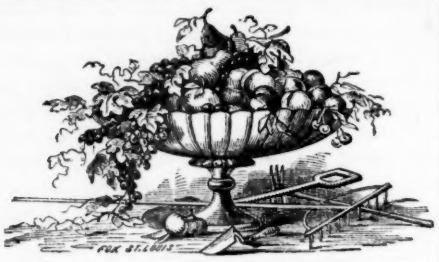
In reply to the questions of our correspondent there are a number of facts to be considered.—We believe it is a point now clearly admitted, that for ordinary farm and plantation work, as well as for heavy teaming generally, whether in the city or the country, mules are to be preferred to horses, regarding the question alone in an economic point of view. Probably the first cost of mules is somewhat greater than ordinary farm horses, but a mule will last nearly twice as long as a horse. A mule can be sustained in working condition upon a much less quantity of food, and that food may be of an inferior, coarser quality than that required to keep a horse well. The mule will bear up under more rough treatment than the horse, and is not so liable to disease, indeed they are seldom sick, while the horse is more susceptible to disease and death than any other domestic animal. When the mule is attacked with disease the same course of treatment is perfectly applicable that would be required in a like disease in a horse.

We have thus far viewed the question only in the light of economy, independent of all other questions connected with labor and farm management. But there are various other matters to be considered, such as the extent and character of the farming, proximity to market, climate, &c. Upon a farm of one hundred acres, situated near a city or town, where the products are chiefly of that character yielding the most ready profit in market, mules might be preferred to brood mares, because the annual fruits of the farm would probably be more profitable than labor and money expended in raising horses.

Under the circumstances just considered, manure, which is an item that should fill a prominent place in the calculations of every farmer, may be obtained in town on the return trips from market to better advantage than it can be made in rearing animals.

Viewing the question from the stand-point in which we imagine our correspondent, "in a climate where stock requires to be kept up six months in the year," remote from city or town, where "mixed husbandry," that is, the leading ordinary crops of the farm, such as wheat, oats, corn, barley, potatoes, fruits, &c., are chiefly cultivated, brood mares might be found more economical than mules. The great demand and high price of mules has caused a great falling off in the supply of horses, where horses are considered indispensable; this has confined the breeding of horses to a better class, so that whether mares are kept for the breeding of mules or horses their offspring now commands a more remunerating price than at any former period.

The most important requisite of profitable farming is an abundant supply of manure. In the case first considered, where manure can be obtained in the city to better advantage than it can be made on the farm, keeping of stock need not form a branch of husbandry for that purpose, but in the country it should be regarded by every farmer as indispensable to the permanent fertility of the soil and the success and profit of the business of farming. Viewing, then, the situation and circumstances of our correspondent, we rather favor the plan of keeping brood mares instead of mules, as the most profitable of the two. With a farm of but one hundred acres, mares can perform all the necessary labor of the farm, and raise annually a horse or a mule colt each, which if good breeds and under judicious management would sell at maturity for enough to meet the difference in the cost of keeping mares over mules, and for the difference in the greater durability of the latter over the former, and leave a handsome profit besides.



Horticultural Department.

THINNING FRUIT.

The great fundamental law of Nature is reproduction. Ever true to herself, the tendency of nature is, (unless checked by circumstances of an unnatural climate) to over-produce. We are told the great Creator planted the first orchard or garden, and took the man whom he had made and put him into the garden to keep and to dress it. The earth had not yet been cursed with thorns and thistles. In what then, did this dressing consist? Probably in part, in thinning the fruit in order to improve the richness and quality of that which remained. It may not be immediately in our midst that there are many varieties of fruits that have escaped the blightings of the severe, repeated frosts of the past winter and spring, and are likely, this season, to overbear. Peaches, which in favorable seasons, are more likely to over-produce than most other kinds of fruit, have, this season, been generally too unsparingly thinned; yet in some orchards that we have examined, we find many kinds of apples and pears that have set double the quanity of fruit that the trees can perfectly develop and support. Now, unless this excess is removed, the fruit will be small, insipid and tasteless. Pears are easily thinned by picking off the inferior specimens by hand. Many inexperienced persons, we know, are reluctant to thus remove the promised fruit, but if they will reason a moment, they should be convinced that, with judicious thinning, that which remains will be so much the larger, and the crop, though reduced in numbers, will be increased in size and improved in quality. Those kinds of apples most likely to over-produce are not so easily thinned by hand, and many persons adopt the method of beating them off with clubs. This is a bad practice. It not only has a tendency to bruise and injure the remaining fruit, but the tree also. Apples and peaches, on trees of this character, are better thinned by removing a portion of the smaller branches with their fruit. A very convenient implement for this purpose is termed an avarancator, a pair of strong shears attached to a pole and worked by a cord over a pully. With these the small branches or even the fruit alone may be thinned with great facility. In climates better adapted to fruit growing, where the crop is less liable to be cut off by the frost, this kind of thinning particularly of peaches, is practiced, according to the method recommended by the late Mr. Downing, in the winter or early spring. With us, where our fruits are usually cut off two or three seasons in five, by frost, well cultivated trees make a vigorous growth, and when a fruitful season occurs, a proper thinning is often the more necessary. Grapes, particularly, frequently prove almost worthless when allowed to over-bear. The fruit often remains unripe until overtaken by frost, in consequence of allowing the vines to bear more than they can mature. All such vines should be well thinned in order to insure a good crop of early, large, sweet fruit. June is the time for attending to these matters.

Dorchester and New Rochelle or Lawton Blackberry.

In the reports of the committees of the Massachusetts Horticultural Society, for 1857, it is stated that every premium awarded last year on blackberries was carried off by the Dorchester, though the New Rochelle was shown in abundance. The report further states, "And it is worthy of mention, that in each and every instance where the committee questioned the contributors for the purpose of learning their individual opinion as to the merits of the one or the other variety for market, there was not a single dissenting voice as to the superiorty of the Dorchester over the other variety—in fact, nearly all said they should abandon the New Rochelle as not repaying them sufficiently well while they could have the Dorchester."

Numerous former accounts have represented the New Rochelle Blackberry as one of extraordinary size and superior excellence. If the Dorchester, or any other variety, proves superior to it, in the West, we would thank our friends, who are experimenting with both, to give us their views on the subject, after the crop for the present season has matured. For the information of those who may not be aware of the fact we will state that the New Rochelle blackberry must be allowed to hang on the bushes for some days after they turn black, and have every appearance of being ripe before they are fit to pick. At first they are somewhat sour, which sourness is materially removed on allowing the fruit to fully ripen.

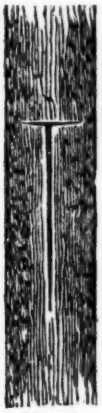


Fig. 1.


Fig. 2.


Fig. 3.


Fig. 4.

BUDDING.

In the *Valley Farmer*, for March, we gave a chapter on grafting. The Mechanical process of budding is performed for the same purposes as those described for grafting.

To nurserymen and gardeners the propagation of trees, by budding, affords additional facilities for increasing the stock of trees, for after the season of grafting has passed, a considerable time may be employed in budding, and this can be performed at different periods, according as the diffcrent kinds of fruit arrive in their growth to the proper stage for the operation. Apple and pear trees may be propagated with about equal facility by either process, but stone fruit, and particularly peaches, are chiefly confined to budding. An expert hand, with a boy to follow and bind, can insert one thousand or twelve hundred buds in a day. But it is not for the nurseryman, particularly, we write, because as a trade, the subject is well undorstood by him, but to farmers in general, it is an interesting one, and may often prove useful, we shall therefore endeavor to describe the process in a manner clearly to be understood by any one who is disposed to make a trial. To the ladies we may also bestow a favor, for roses may be budded at almost any time during summer and early fall, and the buds inserted will bring flowers in a few weeks after the buds are set. The common old fashioned blush rose and the Manetta make good stocks on which to bud any of the perpetual bloomers.

Unlike the process of grafting, that of budding is confined to narrower limits, as to time for each variety of tree or plant to be propagated, and can only be performed when the stock on which it is intended to operate shall be in a thrifty and healthy state, just after the tree or plant has passed the period of its most rapid growth, and just before the terminal buds are formed.

As in grafting, there are various modes of budding, but there is but one that is now generally practiced, and that we shall describe.—For fruit trees into small seedling stocks, and particularly the peach, it is best to set the bud as near as possible to the ground, but when it is necessary to put new heads upon larger trees it may be performed on the branches, provided there is vigor of growth sufficient to produce a free flow of sap. In nursery trees our practice has been to set the buds upon the side of the stock least exposed to the drying influence of the sun, but if the weather proves cloudy it is not absolutely necessary.

In setting the buds, a smooth place on the stock should be chosen, the leaves and small branches removed for a short space, so as to render the work convenient to be performed; at this point an incision is made lengthwise through the bark of the stock, and a small cut at right angles at the top, as seen in fig. 1. A bud is then taken from a shoot of the present year's growth, by setting the knife in three-eighths or half an inch above the bud to be removed, and cutting downwards about an inch and a half in length, with a small part of the wood directly beneath the bud. The edges of the bark at the incision in the stock, are then raised a little with the ivory on the end of the handle of the budding knife, as in fig. 2; the bud is then pushed downwards under the bark as shown in fig. 3. A bandage of bass-wood bark, properly prepared, or of corn husks or soft twine is then bound round, covering all parts but the bud. The band should be drawn sufficiently tight to bind the bark to its place, but not so firm as to wound or bruise the bark. See fig. 4.

The shoots containing the buds should be cut when so mature as to be rather firm and hard in texture; they are usually in the best condition about the time the terminal bud has formed.—To prevent the loss of sap in the shoots, the leaves must be immediately cut off, leaving about a quarter of an inch of the foot stalk. In this condition the buds may be kept a week or more if rolled in a damp cloth or paper, and kept in a moist, cool place, or they may be transported long distances, packed either in wet cloth or moss.

It is the custom with European gardeners to remove the small piece of wood beneath the bud before it is set, but it is not a good practice; in our dry, hot climate, the wood prevents the speedy drying up of the bud, and tends greatly to insure the healing around it.

After twelve or fourteen days, on thrifty stocks, the bandages cut into the stock, by its increased growth and renders it necessary that they should be loosened or cut. On all fruit trees, &c., the buds remain dormant until the following spring, when the stock is cut off just above the bud, and slanting upwards from it. All other buds on the stock must be rubbed off as they put out.

Buds inserted in the early part of the season may be made to grow the same season by heading down the stock after the bud has fairly united. But with the exception of roses, nothing is gained, as a general thing, by it, because the young wood will hardly have time to mature sufficient to withstand the cold of winter.

With a few sweet-briars, or the old, common blush rose, for stocks, the multiplying all the improved varieties of the rose by budding, affords a pleasant recreation for ladies having a taste for the beatiful, as well for their lords.

NATURAL GRAFTING OF ONE OAK UPON ANOTHER.

Mr. J. E. Holmes, of Newark, Ohio, in a letter to the Scientific American, describes a curious freak of nature to be seen near Robinson's coal oil works, in Perry county, Ohio. It is a white oak tree, of fine, healthy growth, on which, at fifty feet from the ground, is engrafted a black oak top of lofty and vigorous growth. The standard tree is about two feet in diameter at the usual height of cutting trees, and the top of the same is fourteen inches in diameter at the place where the black oak is joined to it. Immediately above the junction the black oak, being of more rapid growth, is enlarged to twenty-two inches. The graft is represented as being of the most perfect description, and there is no appearance of deterioration in either the white oak or the black oak portions. There are several limbs below the union, and those above are said to be equal to any tree of the same description in that section of the country, and would form a luxuriant and proper superstructure for a stock of three feet in diameter. The only reasonable supposition of this curious growth is that the top of the white oak was broken off by the falling of the black oak tree near it, and that a branch of the latter must have been so driven into the fracture as to unite and grow in a firm manner, to produce this singular phenomenon. Nature must have been remarkably nice in this operation, with a combination of the most favorable circumstances, for art and nature combined could hardly produce an equal on so large a scale. Such a curiosity is worth going miles to see.

FRUIT FARMS.

Fruit should constitute a part of the products of every farm, and a portion of the consumption of every family. But there are some lands especially adapted to fruit, such as hill sides, broken regions, dry and rolling tracts. We observe in almost every part of the country much land, made as it were, for fruit. There is no way in which such land can be so profitably cultivated, as to put it wholly to fruit. It may be made to yield a double and sometimes a treble crop annually. By setting it out first to the larger fruits as the peach, apple, pear, cherry, plumb &c, not very near together, a good orchard may be secured in a few years. In the mean time, the same ground can be covered with small fruit, such as the blackberry, raspberry and strawberry, which can be made to produce well in two or three years. A good crop of small fruit is exceedingly profitable of itself. To this may in a few years be added larger fruits which in all markets find a ready sale. We know an orchard of eighteen, acres thus cultivated which yields a net profit of several thousand dollars annually. This year, if no harm befalls the fruit and it brings anywhere near the usual price, it cannot be less than eight or ten thousand dollars. But this orchard has the advantage of being near the city, so that its produce can be marketed every day as fast as it ripens. In case of orchards away from markets, the fruit may be canned or dried. Canned fruit is now an article of commerce that always finds a ready sale

at a high price. The work of canning is simple and may be safe and certain. Winter fruit may be transported a considerable distance and still be sold at a profit. This is a kind of agriculture that in years to come is to receive much attention and be carried to great perfection. Those who are first in it will receive and be leaders in a great enterprise. This fruit cul ture we regard as a humontocious as well as a pleasant and profitable work. The world needs fruit. Its health and happiness demand it. How much better that fruit take the place in hospitality of the beverages that load the table and the sideboard. We look forward to a time when fruit shall be so plenty, that with little expence, every family can be amply supplied. Then cordials, jellies, pleasant drinks and foods can be furnished for all social occasions, which may take the place of hurtful and dangerous drinks. Fruit is to be one of the means of blessing the world. So let the trees be put out and all preparation be made to hasten the fruit era of the world.

DISEASE OF THE SYCAMORE OR BUTTON-WOOD TREE.

We regret to notice that the disease or blight which has proved fatal to so many of the sycamore trees in the Atlantic States has finally found its way to this section of the West, and is likely to prove equally destructive with us.

The sycamore is one of the most majestic of our Western forest trees; it is of rapid growth and has been a favorite shade tree for many years in cities and around country dwellings. About twenty years ago along the South Atlantic border it was attacked with a kind of blight that finally killed thousands of trees, both in towns, in cities and in the wilds of the forest. The disease subsequently continued to work North until it swept the whole Atlantic coast, from Virginia to Canada, and as far West as the Northern line of Ohio. From our entire exemption from any symptoms of the disease for so many years we had come to the conclusion that it would never extend to the interior of the West, where the tree grows in all its native pride and grandeur, but within a few days past, say from the 10th of May we discover unmistakeable evidences of the fatal disease along our city walks, and we presume those in the woods and along our rivers are not exempt.—From the present appearance of the trees we are led to infer that they were attacked last season, as, on close examination, we find many dead and decaying twigs and branches on the trees, indicating a previous attack, but we did not discover it until the present spring.

Its symptoms are, first, a blight and decay of the smaller twigs and branches, then a gradual scantiness of foliage; afterwards the larger limbs become affected and finally, after a few years, the death of the entire tree follows.

As insects were found on the diseased trees it was first supposed that they were the cause of the malady, but the late Dr. Harris, of Cambridge, Massachusetts, who had devoted a lifetime to the study of entomology, assured the public that the insects then found in the sycamore trees were well known, and were incapable of producing such results. It is possible, however, as in the case of the Western apple tree borer, that the diseased trees attract the insect, as best suited to their nature. The general opinion among those who have investigated the subject is that the disease in question is the result of atmospheric causes, similar to that which has long proved destructive to the potato, indeed the appearance of the disease on the foliage of the potato and on the sycamore is not dissimilar. In both, the stem of the tree or plant seems enfeebled, and almost entirely destroyed by a blight, which may be traced to an original disturbance in the healthy action of the foliage.

Where the trees are regarded as particular favorites in the street, on the lawn or around the house, they may not be sacrificed. A little timely precaution has, in hundreds of instances, saved them. This has been done by heading in, or shortening, very severely, the extremity of all the limbs as early as possible after the disease is discovered. This forces the tree to develop new buds, and a strong set of thrifty shoots, with large and healthy leaves, imparting a vigor to the tree that seems to enable it to resist future attacks of the *malaria*, so fatal to the ordinary or normal growth. When this treatment is neglected the attack continues from year to year, soon after the leaves begin to expand, until the tree becomes so much enfeebled that it finally dies. After the attack in the spring, for a number of years, a new set of foliage is put on, and persons not familiar with the disease would be led to infer that it had entirely left, and the tree would speedily recover, but with each returning spring the vital powers of the tree become more and more weakened until it finally dies.

We have accounts as early as 1810 that this disease attacked the sycamore trees in the city of London, Eng., with the same fatal results.

Wine Growing in Missouri---Interesting Correspondence.

COLUMBIA, Mo, April 15, 1858.

HON. J. R. BARRET, *President of the St. Louis Agricultural and Mechanical Association*:

MY DEAR SIR: The noble efforts of your Association to promote the agricultural and mechanical interests of our State, have filled the hearts of all Missourians with pride, and caused us to look forward with high hopes to the beneficial results which are certain to flow from such efforts.

Will you permit me to make one suggestion and give my reason in a few words? The reasons, first—

France has about 5,000,000 acres in vineyards. They yield annually about 925,000,000 gallons of wine, besides some 95,000,000 distilled into brandy; they give profitable employment to about 2,000,000 of people, mostly women and children, and an annual income of more than $1,000,000,000.

Now, sir, I believe it is clearly demonstrated that there are in the highlands of Southern Missouri more than 5,000,000 acres as well adapted to the culture of the grape, as those now occupied by the vineyards of France. That these 5,000,000 acres might be occupied with vineyards without detriment to other departments of husbandry. They would yield annually at least 100,000,000 gallons of wine; furnish employment both pleasing and profitable to 2,000,000 people; give an annual *profit* of over $500,000,000, and what is still more important, the pure nourishing juice of the grape would take the place of the vile maddening compounds used under the names of wine and brandy; drunkenness would give place to sobriety, and our people, nourished by the grape and its pure wines would become as robust and hardy as they are now daring and indomitable.

You may look upon this as the bright dream of a too hopeful imagination. But it is based upon a careful study of our climate, soil, native grapes, and the experience of our vine-dressers.

I fearlessly declare the proposition solved. The meteorologist, for many long years with patient, watchful care, day after day and night after night, has weighed the air with his barometer, gauged its moisture with his hydrometer, and measured the rain and snow with his rain-guage, while the thermometer has indicated every change and extreme of temperature. The record of all these facts, proves our climate as well adapted to the grape, as it is in many of the best vine-growing countries of the old world. The botanist has found all the wild vines of our country at home in our midst. He has noted their giant growth in our rich, broad valleys, and their larger and more delicious clusters on the dry, sunny hills. The geologist has interrogated every rock and plant from which the soils are formed. He has noted the sandstone, the lime-stone, the porous flint, the marl, and the decaying and the burning plant, all comingling to form a light dry soil, rich in all the vine demands for its perfect development. The careful, exact analyses of the chemist give the same results.

All these facts demonstrate the peculiar adaptation of our soil and climate to the culture of the grape. But we are not left to the deductions of science alone for our conclusions. The vine-dresser, after fifteen years of careful culture, pronounces the experiment a triumphant success. He reports an annual yield and profits far greater than my estimates in the foregoing prediction.

The Meteorologist, the Botanist, the Geologist, the Chemist, and the Vine-dresser, each and all have proved that Missouri may compete with France and Germany in the production of grapes and wine. The terraced slopes and ridges of Central and Southern Missouri, with their warm, rich soils; the delightful climate of our Southern highlands, with their clear Italian skies, and dry bracing air from the Western Prairies; our myriad native vines, gracing every copse and thicket, the purple clusters and foaming vats of our prosperous vine-dresser, all proclaim the possibility of these magnificent results.

To hasten this auspicious day some effort should be made to secure the compilation and wide circulation of a work, which shall set forth in a truthful and plain, but earnest manner, the qualities of our climate as proved by meteorological observations, the properties of our soils as shown by geological and chemical examinations; the abundance and character of our native grapes, and the experience of our vine growers, and show from the facts thus collected, the peculiar adaptation of our State to the cultivation of the grape.

Such are the reasons. My proposition, is that I will be one of twenty to give $50 each to accomplish this purpose; $500 to be given as a premium for the best essay on the subjects above named, and the remaining $500 to be spent in publishing and circulating the same.

Now will the prospect of 2,000,000 happy vine-dressers on our sunny hills, and an annual profit of $500,000,000, Induce every philanthropist and political economist to hasten the time when our "poor flint ridges" will be as valuable for vineyards as some of them now are for their rich mineral veins; when the vineyards of Arcadia will compete in golden profits with the glowing furnaces of the Iron Mountain, and the vine-clad hills of the beautiful Niangua, will vie in wealth with Potosi and Granby?

Very respectfully, your obedient servant,
G. C. SWALLOW.

ST. LOUIS, April 20, 1858.

Prof. G. C. SWALLOW, Goelogist of Missouri,

Dear Sir: Your favor of the 15th inst. has been received. So able a letter upon a subject in which I have felt a deep interest for years, could not fail to afford me great pleasure.

The suggestion is of such vast importance to the State, comes from so high a source, and is urged by reasons so satisfactory, and in language so plain and concise that I have taken the liberty of giving it to the public without even asking your consent.

Others, actuated by the same liberal spirit, may be induced to contribute towards the $500

premium for the proposed work—and surely no greater benefit could be done the State than to secure the amount of information which would thus be elicited.

The publication will cost nothing, for it is the intention of the St. Louis Agricultural and Mechanical Association to make out and publish in book form a full and complete report of the *Third Annual Fair*, to contain the awards of the various committees, all the essays on agricultural subjects, an accurate description of all stock, implements, machinery, &c, on exhibition, and to be illustrated with engravings of the premium stock and implements.

Allow me, on the part of the Association, to thank you for the complimentary manner in which you are pleased to refer to their efforts in the promotion of agricultural and mechanical interests in our State.

Very, respectfully.
J. R. BARRET.

MUSTANG GRAPE.

The mustang grape, in innumerable millions, grows all over the country. It is not very different in appearance from the muscadine of the old States, though smaller. I have stood in one place and counted at least half a dozen trees, upon which these grapes were growing from each of which I think, a hogshead full of them might be gathered. The prairies are generally dotted over with what are called *mots*—little clumps of low timber and undergrowth—of various sizes, from the area of an ordinary house to that of an acre. Besides these there are low scrubby oaks scattered here and there. Upon these in many places, and in the more timbered country, mustang grape vines flourish, and their rich, black clusters abound. It is vexing to ride by them with your mouth watering, remembering all the time that you cannot enjoy them. They are not very sweet unless gathered and suffered to lie in the sun a day or two. And if you suffer the rind, after being burst, to touch your mouth it will take the skin off besides giving you great pain. The only safe way is to take the grape between your thumb an forefinger, turn your head back, open your mouth press the juice and pulp out, and let them drop into your mouth. But every one can see that this is very unsatisfactory.

And this grape makes the finest kind of wine, and many of the older settlers make many gallons every season. It is said to be of the finest quality. Wine making will, no doubt, become a common employment in this country. This would be the case at once were it not that cotton and sugar, besides other agricultural products, can be raised so abundantly on these fertile plains. This grape can be greatly improved by culture, though it would seem that it does not need it very much. In some places in Texas, beautiful summer houses and bowers are made by these grapes.—*Texas Advocate.*

The Vegetable Garden.

[Written for the Valley Farmer.]

GARDENING OPERATIONS FOR JUNE.

BY C. SANDERS.

FLOWER GARDEN AND SHRUBBERY.

To keep the beds and borders clean by hoeing and weeding, will be the principal routine of work for this month. Stir the soil frequently among the growing shrubs and flowers. Remove all decayed leaves, branches or dead plants as fast as they appear. Stake and tie up neatly, and in as natural a manner as possible, all plants that require it. Do not bundle them up together and tie, as though you was tying a sheaf of grain. Dahlias, especially, should have a stake put to them early, and a string passed round them to keep them from being swayed about by the wind. Train it to a single stem and pinch off the weak lateral shoots.

Successful sowings of some of the most desirable kinds of annuals may be made, to take the places of the first sowings, which will soon be running away to seed, or growing spindly and weak. There are some annuals, as the Mignonette, for instance, which should be had blooming all the season through, its fragrance is so delightful. Then the bees are so fond of it.

Roses.—As soon as these are out of bloom, take your flower scissors and go through and cut off all the seed vessels. There is a two-fold object in this. First, the decaying petals are unsightly, and are best removed. 2nd. By cutting them off it keeps the plant from exhausting itself, in perfecting its seed, and will cause the hybrid perpetuals to start again into new growth, and they will bloom again the sooner and the better for it. When they have started to grow again, an occasional watering, with manure water, will help them greatly, by adding vigor to their growth, and enhance the beauty of the flowers individually. All seed pods, on any flower or shrub, that are not wanted for propagation, or that have nothing ornamental in them, are much better removed.

Window plants, such as scarlet and Rose geraniums, heliotropes, &c., that have been kept in pots all winter in the house, had better be turned out of pots and planted in the open border during summer, having been previously well cut

back, if wanted for blooming again in the house next winter, they may have most of the soil shaken from the roots, and re-potted again into new soil in the same sized pots, and the pots plunged into the ground up to their rims, and most of the blooms kept picked off through the summer.

The soil most suitable for all that class of plants should consist of thoroughly rotted, turfy loam, or garden mould, leaf mould from the woods equal parts, with sand enough to render porous, and in some cases a little well rotted manure.

These plants that are kept year after year for blooming in-doors, should always be pruned back annually and turned out or repotted, and a period of rest given them, to enable them to recruit their exhausted energies, and to keep them dwarf and bushy.

VEGETABLE GARDEN.

Hoeing, weeding and thinning the growing crops will be in order. Thin out the root crops early, and give them room enough to grow out well. It will depend on the richness of your soil, as to how you may thin. If the soil is rich and the cultivation good, carrots will grow large, even if allowed to stand moderately thick, and so will onions; they will ride and shoulder each other out in good strong ground. If your ground is poor you must give more room and make up for it, by more frequent hoeings. Beets can easily be grown too large; those not larger than a tea cup are about the proper size for the table. Shape and color are much more important than size in this as well as some other vegetables. The turnip beet should be perfectly smooth, globular and deep red inside.

But of all the vegetables that require a rich soil, cabbage and perhaps celery are the greatest. To grow these large you must have good ground. Not ground that has had one good coat of manure merely, but that which has had a heavy dressing perhaps annually for several years. It may have been cropped annually too, no matter for that it will be sure to have left each time, some of its fertilizing material unappropriated, and be growing richer every year. In the absence of such ground, give a good dressing of well rotted manure, *plow deep*, and cultivate well, i. e., hoe and stir the soil about them frequently; by the end of the month, some of the first of the fall and winter cabbage may be planted out, also cauliflower and brocoli. Snap beans, sweet corn, squash, cucumbers and tomatoes, will be the principal crops to sow for succession now. Those who want early celery may get out a row or two, but for main crops next month will be quite early enough. A sowing of endive may be made for earliest use.

Do not continue to cut the stalks of your asparagus beds too long; no precise rule can be given as to the date you should quit cutting, as the season varys each year. But a good, though old fashioned rule, is to quit after peas are fairly in, as peas are a good substitute for asparagus. All the stalks that come up after that should be left to recuperate and strengthen the crowns for another year. The same remarks apply to rhubarb also. The seed-stalks should be removed as fast as they appear, for they exhaust the roots, which in this case are wanted to produce leaves and stalks.

Herbs intended for drying for winter use should always be cut when about in full bloom, and dried in the shade; spread them out thinly on a table or the floor of some spare room or airy, covered shed. When dry, they may be tied up in bunches and suspended in any dry, airy room or shed, though a better plan is to pulverize the leaves fine and keep them in a tightly corked bottle, as different kinds of herbs come into bloom at different periods, they will require attention accordingly.

FRUIT DEPARTMENT.

Look out for insects among your trees and bushes. Tobacco water, or what is better, tobacco smoke, will easily rout all the species of green fly (aphis). Nearly every distinct family of plants, has a species of aphis that feeds on it, and belongs to it, as it were; their rapidity of increase is prodigious; happily their destruction is easily compassed, if it is only set about. There's the rub.

It will be almost too late to warn you of that gregarious fellow, the caterpiller, which has a large web-like nest, (a most conspicuous object in the tree) where they congregate in droves and from whence they foray among the branches and leaves. We have seen large trees defoliated by them, so that not a single leaf could be found entire. The apple, the cherry and the locust, they seem to have the greatest liking for, though they are by no means confined to these. We have known persons to shoot them in high trees out of reach, and have practised burning them out with a torch, made by tying a piece of paper on a long pole, also twisting the nest out with a crotched stick. Of course all these remedies must be practised when the insects are at home in their nests, and better while they are young, but better late than not all, because you *do* destroy their progeny for another year.

As the hot, dry weather, natural to the season, approaches, give increased attention to your newly planted fruit trees. It is a perfect folly and waste of time, to go to the trouble and expense of planting trees well, and then to utterly neglect their after cultivation.

Those who have planted well should by all means cultivate well, in order to reap the full benefit of their labors, while those who have planted carelessly and taken little pains, might retrieve some of their loss, by thorough and careful after cultivation. What constitutes good attention, and what neglect? it may be asked. What constitutes the latter is, to leave them entirely untouched during the season after planting. To allow the soil about them to become hard, dry and baked, or covered with rank weeds and grass, often growing up taller than your head, obstructing the light and air, and worse, drawing off and devouring the moisture at a fearful rate, (especially near the surface,) that is demanded by the newly formed roots of

the growing tree, and the more demanded and required from its being newly planted, and its roots not yet penetrated to the depths below.

The obverse of this is, to keep down all weeds, by beginning at them while young, to keep the soil mellow and fine, and well pulverized by frequent stirring with the hoe or cultivator, and lastly to mulch them with a thick coating of old hay, straw or leaves, five or six inches thick, and at a radius of two to three feet from the stem, according to the size of the tree. Hundreds of young trees that apparently started well have been lost, from a total neglect of the above precautions. But the extra growth of those so treated would more than repay all labor and trouble over those neglected even suppose they all managed to live. There are few trees, more sensitive too, or better repay such care, than the peach. The difference will be between a stunted or no growth and many dead branches, and a vigorous growth of two or three feet. And of the trees that are liable to suffer, even unto death, from a neglect from this care, the cherry stands first. Remember these hints, farmers and planters.

ROSES IN JUNE.

June is pre-eminently the month of roses; nearly all the different classes of the "Queen of Flowers," will be in their full glory and beauty during this month.

To the uninformed as to the classes, we will say that a class consists of varieties that originally emanated from different species, natives of different countries, and possessing different habits of growth, coloring in flower, and different degrees of hardiness. Although they have been so intermixed and blended by hybridization as to make it difficult to tell where one class ends and another begins or to which class certain varieties really belong. Still there is some sufficiently well-defined and distinct characteristics, which with a little observation and experience will enable one to determine near enough for all practical purposes.

It matters not, however, what class or species our favorites belong to, provided we get all the desirable qualities, and that be it known, has been the object and aim of the hybridizers and improvers. To add the perfect form and color of one species to the everblooming qualities of another species. The fragrance and delicacy of another, to the robustness and hardihood of another, and so on. And well they have succeeded, for now we have varieties that possess in a greater or less degree all of the above qualities, but this has been the work of generations of time and a vast amount of persevering skill. Those who desire to make up a collection for their gardens or to extend their present list of varieties, we would advise a visit to some of our floral establishments, and a personal inspection, while in bloom, note down the names of the varieties that please you, or are recommended to you for their general good qualities. The same varieties can most likely be purchased in pots or from the open ground in fall or spring.

To those who reside at a distance, and have not the opportunity to examine for themselves, we will venture a short list of such varieties as we think will please. No garden, however small, should be without a few representatives of the better classes of the rose, as the hybrid perpetual and bourbon, which are very much superior to the common June roses and maidens blushes, in habit, form and color, but more especially in their constant blooming properties.

For culture, although the rose will grow and bloom in almost any soil, yet to have them flourish and bloom in perfection, a strong, loamy clay, deeply trenched and well manured with good, strong, rotted yard manure is necessary; in this they revel and luxuriate.

The divisions or classes before spoken of, are quite numerous. The principal ones, most in use, are the Remontant or Hybrid Perpetual, Bourbon, Bengal, China, Noisette, Prairie or climbing roses. Of the number of varieties, Mr. Robert Buist, of Philadelphia, says: "We are confident that there are 700 varieties cultivated in the United States, and we are also confident that 100 would embrace every color and character among them." So it will be seen that so very long a list will not be needed, even this can be reduced to a few dozen, and still embrace nearly every distinct color and character that is desirable for either a large or small garden.

HYBRID PERPETUALS.

This class is best for general purposes, being perfectly hardy, strong growers and good bloomers.

Augusta Mie, glossy pink, new and exquisite; Amanda Patenotte, dark rose, large and double; Baron Prevost, light rose, strong grower; Baron Hallez, rosy crimson, excellent; Caroline de Sansel, light rose, large and full; Giant of Battles, bright crimson, splendid, free bloomer, Lion of Combats, very deep crimson, strong and good; La Reine, rosy lilac, a magnificent rose; Marquis Bocella, blush or pale pink, abundant bloomers; Prince Albert, glowing crimson, large and full, splendid; Queen Victoria, blush white, tinted with pink; Pius the 9th, deep purplish crimson, profuse bloomer.

BOURBONS.

Hermosa, rosy pink, cupped and double, constantly in bloom, best; Souvenir de la Malmaison, very large, flesh color, magnificent; Boquet de Flore, bright rosy carmine cupped; Leveson Grower, rose color, tinged with salmon pink, splendid; Mrs. Bosanquet, white, with rose centre, a profuse bloomer; Joseph Gourdon, rosy crimson, full fine rose.

NOISETTE.

Amie Vibert, pure white; Cloth of Gold, straw color, yellow centre; Fellemberg, bright red, blooms profusely late in fall; Lamarque, whitish straw color, very large; Isabella Grey, bright yellow, fragrant and new; Washington, white, small, but profuse bloomer, very double.

The two last collections are not so hardy as the first, but will stand in this latitude with a little protection. There are other valuable kinds which shall be spoken of at some future time.

The Home Circle.

DOMESTIC PEACE.

In the world men seek for honor, wealth, display, learning, power, for lands, goods, authority, and they put forth their most untiring efforts to secure their aims. They rack mind and often wear out life in the chase for their prizes. They make a warfare, a race, a struggle of their business life. And they come in from it to their homes, worn and wearied with toil and care and anxious thought. From farms, from shops, from markets, from offices, from streets they come home like jaded animals from the plow and cart. Such is the business life of the great world of men. They make it, unnecessarily, a real battle. And coming from it as they do with worn nerves and wearied muscles, they feel that home ought to be a place of rest, peace, quiet. And if they do not find it a paradise they become impatient, fretful, fault finding. They come in in a mood to be easily disturbed; so if the supper is not quite ready, or to their taste, madam in the best of humor, the children all quiet and pleasant as kittens in the sunshine, the fire blazing warm and cheerful, house in order, everything right, they get fidgetty, chafe, fret, foam and scold, turning out what little peace there was in the house before they came in. They forget that there is a battle within as well as without, that there is work, care, trial, anxiety, weariness, struggle indoors as well as out, that women have a more nerve-wearing life than men and more full of vexations care and wear and tear. They forget the noisy children who from sun to sun bable, run, romp, and turn topsey turvey the whole inside domain, quarrelling, teasing, crying, hurting, bumping, breaking heads, noses, fingers, toes, growing worse and worse till they are still in sleep after the weary men come in. They forget the sewing, patching, cooking, dressing, washing, sweeping, dusting, feeding, talking, ordering, chiding, guiding, that must go on amid every bustle and storm in the houses. And forgetting these things they often expect domestic peace without helping to make it. Ministers, moralists and men have always talked of domestic peace as peculiarly the work of women. Wives and mothers, sisters and aunts are expected to be domestic angels, ever greeting with smiling welcome the men folks when they come in, come in what mood they may, and having a kind of domestic may-day always ready whatever may be the trials through which they have to pass. This expectation is not just, unless the men-folks make up their minds to bring in a may-day with them. Domestic peace has been regarded too much as a one-sided matter. It has been understood to be the peculiar province of women to make it. The must make peace and preserve it, however much the men of her household may disturb it. This one-sided view is all wrong. Domestic peace is the proper product of the goodness, virtue and kindness of both men and women. Each should consider the trials of the other and seek to alleviate them. They should strive to lighten each other's burdens and share each other's cares. Men must not expect to find peace and joy in the house unless they carry them in. Women must not expect that the men will bring in sunshine, unless they keep the home always sunny. Man and women have both too many cares and toils. They both take life too hard. They spend and waste too much of the fruits of their hard labors. They do not live simply and plainly enough. But while each do make such up hill work of life, they should help each other, and expect nothing that they do not help to make. "Live and help live" is the motto.

HEALTH AND HOME.

It has passed into a proverb long ago that health is the greatest of all earthly blessings. It is true that a sick man is good for nothing, unless it be to make trouble for other people.—Health is one essential condition, necessary to the proper exercise of our faculties. This all will admit. Will all admit as readily that we may all enjoy health if we will? It is true, that as much as other great blessings are within our reach, health is. To a very great extent our health is in our own hands. There are laws of health as well as laws of the state, laws of life, laws of God. By obeying these laws we enjoy health; by disobeying them we lose health. By obeying the laws of the state we are good citizens; by obeying the laws of God we are good men and women; by obeying the laws of health we are physically well and happy.

But one thing is clear, we cannot obey the laws of health unless we know them. To know them we must study them. This should be one of the studies of home and of every-day life.—Every one should study his own health, his own physical system, what benefits it, what injures it. It should be one of the studies which children should early be taught, and which men should never cease to pursue. As we work,

travel, play, rest, we should observe the movements and conditions of our physical frames. Thus should we become home observers of the laws of health. We should become home-physicians, home lectures on health, home professors of the wisdom and lore of the best of all learning, that is, how to be well.

To this end, it is necessary that we should have teachers, books, and whatever is necessary to give us the information we should have on the subjects of health and sickness. As one of these teachers we may cite Dr. John C. Gunn. As one of these books we may refer to his NEW DOMESTIC PHYSICIAN, or *Home Book of Health*. In this he has treated largely the general subject of health; the causes and cure of diseases, as well as diseases themselves. It has a supplement, by Dr. J. H. Jordon, of Cincinnati, O. It is published by Moore, Wilstach, Keys & Co., Cincinnati. Price $5 00. This book alone will give much of the information necessary to preserve health. This, or some other book of the kind should be in every family and thoroughly studied. It is easier to preserve health than to cure disease. An ounce of prevention is better than a pound of cure. By learning early the laws of health we may have a life of health and strength; by neglecting to acquire this useful information we may bring on a life of disease and misery. It is a work for home, for parents, for everybody.

Every family should take a health paper, or journal, and have many books on the general subject of health. In a word, the people want enlightenment on the subject of health and disease. There is no mystery about them. They are not abstruse and deep. It does not require great scholarship to be wise in relation to them. They are common sense subjects and within the reach of common sense of common minds. Let the public attention be roused and every home made a college of health and how fair and fresh and strong would our people soon become. We are always in favor of home culture, home enjoyments, home refinements and home improvements.

THE SEWING MACHINE.

Clap your hands, Oh, ye weary women of the needle; your millenium draweth nigh! It will soon be no longer stitch, stitch, stitch, with bowed form and strained eyes, from early morn till the weary hours of night. The blessed sewing machine has come to redeem you from your weary toil. You may straighten up and breathe easily once more, as when you were children. You may no longer bow to the control of the tyrant needle. A freedom will soon be yours, that for long years you have not known. Some one has called the needle a "little devil," so long has it bound women to weary toil; so many has it robbed of health, beauty, elasticity of step and spirit. But for one we will not abuse the needle. It has had an honored mission; but it has about fulfilled it, and must stand aside for its great successor, the sewing machine.

A few years ago the sewing machine was heard of as we hear a fable, or an oriental romance, not to be regarded as a possible thing. People sometimes amuse themselves in talking about perpetual motion, flying machines and such airy phantoms, and with such, have many classed the sewing machine. But the strange thing, like the steam car and the telegraph, has come at last to take its place among the realities of life. It has come to be a household associate. It stands in our ware-houses for sale, ready to sew the world up in a trice. And it will do it, too! It has a lightning way of sewing. It dashes in the stitches in a full shower, and yet they all stand in order, like marshalled soldiers, in a row, and each one in his place.—And such stitching. No living fingers can make such work. It will gather, hem, whip, sew straight or crooked, do all plain sewing but button hole work. It will make shirts, frocks, pants, coats—all that men and women need wear, save for the head and feet, and do it without the weary toil of the old way.

Now what we write this article for is to ask every woman who has a family, to have a sewing machine. It will save itself in one year; can be used by everybody of ordinary skill with a little practice; does not easily break, or get out of order, and will, at some kinds of work, do more in ten minutes, than one woman can in a day. It is as much faster than the old way of sewing as the rail-road is faster than the old way of traveling. It costs from $40 to $130, according to the kind and finish. There are now many kinds, of different stitch and style of working, each claimed to be the best. Let every family save enough as soon, as possible, to have a sewing machine.

☞ It is not work that kills men and woman; it is worry. Work is healthy; you can hardly put more upon a man than he can bear. Worry is rust upon the blade. It is not the revolution that destroys the machinery, but the friction. Fear secretes acids; but love and trust are sweet juices.

The Young Folks' Page.

THE CONFESSION.

Many years ago there lived a little boy on a quiet little farm with his father and mother.—His name was Henry. When he was seven years old a little incident occurred which taught him a lesson he never forgot. He was in the habit of running about the farm, into the barn, sheds and out-buildings, and wherever he could with perfect freedom. He often had to contrive many ways to get over high walls and fences and into barns. There was but one barn door that he could open. That was fastened with an old-fashioned square knob, which let the door open when it was turned. Henry had a long, heavy club he used to turn the knob.—He did it by pounding one corner of the knob. One day he went in much haste to the barn, caught up his club and began to pound away at the knob with all his might. After a few blows, laid on with a vengeance, off flew one side of the knob. What should be done? He had broken the door. He could not mend it; he could not conceal it; he could not charge it upon any one else. In his mind it was a terrible fatality. Alarmed, sorry, guilty, he looked about him. No one saw him do it, but there was the broken knob and the club. He began to cry as though his heart would break. He thought he should have to have an awful whipping, though his father had never whipped him. But he had never done such a deed, had never so deserved a whipping. After a moment or two he said to himself, "I will go and tell father. I won't tell a lie about it, then if he whips me, so be it." No quicker thought than he was making the best speed for his father.—In broken accents he told what he had done. "Never mind the knob," said his father, "I can mend it or make a new one. You are a good boy to come and tell me. I am glad you don't tell a lie about it. Do so always. When you break anything or do anything wrong come and tell me. Never fear to tell the truth; it will make you always an honest boy." And patting his head he added, "Now don't cry any more, I had rather you would break a hundred doors than tell one lie."

How happy Henry felt at that moment. Instead of the whipping he expected, he received his father's praise. Henry never forgot the lesson. He saw that to be honest was best, was right. He determined that come what would he would always be honest, and always tell the plain, simple truth. It seemed like a little thing, but it made an honest man.

THE GARDEN.

All young people like the garden, with its nice vegetables, its currents, gooseberries, melons and little world of good things. They like to see its fine, long beds of onions, beets, carrots, parsnips and pleasant walks between, square, parallel, and in order. Everything looks so orderly, so neat, so promising, that it is always a pleasant sight, especially in the spring of the year.

Now I want to say that every young person has a garden of his own. The poorest child has a garden. The little beggar boy and girl, even if they live in the pent up city, have a garden, and it is their own too. It does not belong to their father, or mother, or uncle, or anybody else. It is all their own. God gave it to them that they should dress it and keep it. That garden is the mind. It is within every child.—The faculties of the mind are the beds, laid there to receive the seeds the owner shall put into them. The beds are prepared by God himself. They are all put in order and in their places. Beautiful is the arrangement. The soil is good and all ready for the seed. But God does'nt sow the seed. He makes the garden, arranges the beds, prepares the soil and leaves it for each person to sow seed as he or she pleases. We can sow thistles, brambles, weeds, tares, if we choose, or we can sow flowers, fruits and good seeds for beauty and food. If we sow thistle seed on one bed, only thistles will grow there. If we sow weeds on another only weeds will grow on that. Whatever we sow that will grow. Our thoughts and feelings are the seed. Good thoughts are good seeds; bad thoughts are bad seeds. Anger is a thistle; pride is a weed; jealousy is a thorn; envy is a briar; fear is a bramble; profanity is a tare; vulgarity is a noxious plant; ill-temper is poison ivy. So all bad thoughts and feelings are bad seeds. If we nourish them or permit them to stay in our minds they will take root and grow. Naughty children sow bad seeds in their little gardens how they will grow and make them wicked and unhappy by and by.—Good children sow good seeds in their gardens, that is, they cherish good thoughts, love to think and talk about good things, good men and women, good deeds, books, stories, and by and by they will have a rich harvest of good fruits to make them wise, useful and happy.—Good thought-seeds are very precious. They should be plentifully scattered in every mind. The more the better. Every thought-seed will top-root and grow and bear fruit of its own kind. Remember it, Oh, youth, and give your mind to good and useful thoughts. Spring is the time to sow seeds. Childhood and youth are the spring time of life. In this spring time should be sown in the mind the best of thoughts and principles. Fill up the mental garden with all good endeavors, aims, desires and principles; so shall you reap plentiful harvests of virtue and peace in age, so shall you be wise and happy through life.

Editor's Table.

REMOVAL.

The Office of the Valley Farmer in St. Louis, has been removed to the South-east corner of Chesnut and Second streets, immediately over the POST OFFICE, 3d story.

To Subscribers and Correspondents of the Valley Farmer at the Louisville Office:—The state of my health requires that I should seek a change of climate during the present summer. All persons, therefore, in writing communications and notices of of Fairs to be held in Kentucky, intended for the Valley Farmer, or matters of enquiry requiring public answers, or private letters designed for me, will, for the present, direct them to the undersigned at Sag Harbor, Long Island, N. Y. All subscriptions and any notices of failure of the Farmer to reach subscribers, may be directed as usual, to the Louisville office, where they will be promptly attended to.

H. P. BYRAM.

Valley Farmer Office, Louisville, June, 1858.

The Weather and the Crops.

The continued, rather cool weather has proven favorable to the grass and grain crops; wheat has continued to spread, and maintains an unusually promising appearance through every section of the country we have visited, and from the reports of our exchanges from every section of the country. Oats and other spring grain also look well with a reasonable appearance of a bountiful harvest. The excessive rain and cool weather has somewhat retarded the growth of corn, and will operate against the first dressing; but what has been lost in time in the corn crop from this cause will be many times repaid in its effects upon the grass and grain. The warm weather of June will tell upon the corn, and with due attention it will forget the chill of May.

The accounts we receive from various parts of the south, represent the frosts which occurred in the latter part of April as doing a considerable injury to cotton, corn, wheat, rye and the fruits. Even as far south as Georgia and South Carolina the frost was much more severe than with us; the mercury in the thermometer in some parts of South Carolina is reported to have fallen as low as 27° and ice was formed an eighth of an inch thick, much corn and other spring crops will require to be replanted. The cold streaks which passed over the country from the 24th to the 28th of April was quite remarkable for its varied intensity. In some parts of Ohio and some of the more northern and eastern states, the frost was quite severe, while over a considerable extent of country far to the south it was equally severe and its effects much more fatal, while through a breadth of intermediate country, except in low, moist places, the damage was slight.

Official Report of the California State Agricultural Society's Fourth annual Fair.—This report occupies nearly 200 pages, showing with what astonishing rapidity the vast resources of this infant State have been developed. No State or Nation ever made more rapid strides in progress and improvement.

Mr. Morril's Land Bill.—The House of Representatives at Washington, have passed the bill introduced by Mr. Morrill for the establishment and support of agricultural colleges in the different states in the Union. The bill was passed by a vote of 104 against 101. It grants six millions three hundred and fifty acres of land, to be apportioned to each state according to its number of senators and representatives, equal to twenty thousand acres for each of the members of both houses of Congress, to which the States are now respectively entitled. The proceeds of these sales are required to be invested in stocks of the United States, and the money so invested to constitute a perpetual fund, the interest of which shall be inviolably appropriated by each State to the endowment and support of at least one college, where the leading object shall be to teach such branches of learning as relate to agriculture and the mechanic arts, including also, of course, other scientific and classical studies, but calculated to promote the liberal and practical education of the industrial classes in these most important pursuits of life.

We regard this, by far, the most important appropriation that congress has yet made, touching as it does the very foundation of the productive industry of the country, which up to this time has shared universal neglect.

Up to the present time the Senate has not acted on the bill. We can but hope that it will meet with the favor that its importance merits from that body.

Convention of Agricultural Editors.—Since writing the notice of a proposed convention of agricultural editors which appeared in our May number, there has been a very general response from those interested, and rather a hearty approval of the measure, but no time or place has been unanimously determined upon. In a circular lately received from Orange Judd, Esq., Editor of the "American Agriculturist," New York, it is proposed to defer calling a formal convention, for the present, but to invite as many agricultural and horticultural editors as possible, to be present at the next meeting of the American Pomological Society, which is to be held in New York City on the 14th of September next, at which time it is proposed to hold a formal convention, or transact any preliminary business, and adjourn to any future time and place that may then be agreed upon.

We fully concur in the proposition to have a general and full meeting of the agricultural press, to remain together as long as such a meeting can be made profitable and agreeable, and in discussing such appropriate matters as may be proposed, and to adjourn to meet at some future time and place.

First Sale of the Bourbon (Ky.,) Cattle-Breeder's Association.—The catalogue for this sale has been issued and comprises fifty-two bulls and twenty-one cows and heifers. As we announced in our May number, this sale will take place on the 3rd of June.

Great National Rose Exhibition.—The gardeners of England are preparing for a grand national display of roses, to be held in London, and to open the first of July of the present summer.

ILLINOIS STATE FAIR.—The Sixth annual Fair of the Illinois State Agricultural Society will be held at Centralia, commencing on Tuesday the 24th of September. The most liberal arrangements have been made with all the railroad companies whose roads intersect with this place and which traverse a distance of country of twenty-six hundred miles, for the transportation of every kind of article intended for exhibition. These are taken and returned FREE of charge and passengers also, at half price; and what is still more liberal, these roads transport all the lumber and materials for fitting up the grounds free. And in the absence of hotel accommodations, the Illinois Central rail road company have engaged to furnish Two Miles and a Half of cars on the side track, for sleeping accommodations, besides furnishing the upper stories of their machine factories for the same purpose. Trains will also be run free night and morning from the fair grounds to Jonesboro and Decatur, one hundred miles in each direction, to carry such persons as would prefer to go to these places for accommodations for the night. We expect that all the good people of the State, as well as thousands from other States, will on this occasion, make their first pilgrimage to the land of "Egypt." We wish them a pleasant time.

GREAT EXHIBITION OF TOBACCO IN LOUISVILLE, KY.—As one of the great agricultural staples of Kentucky, the State Agricultural Society offered liberal premiums to the best hogshead of tobacco of four different classes.

The exhibition took place at the Pickett warehouse on the 19th of May and called forth the largest and best display of tobacco that has ever taken place in the State. The premiums offered were in silver plate, of the value of $100 for the best of the several classes. There were eighty competitors. The premiums were offered as follows, viz:

For the best hogshead of Leaf Manufacturing, W. R. Wells, Hart Co., Ky.

For the best do. Leaf Cutting, Sims & Blandford, Davis Co.

For the best do. Leaf Stripping, W. S. Lacy, Christian County.

For the best do. Leaf Cigar, J. Morris, Mason Co.

Two hogsheads from Ohio, which under the rules of the Society could not be admitted to come in competition, were exhibited, and of such superior quality that the committee awarded to the owners of each a discretionary premium of a silver goblet.

Certificates were also awarded for the 2nd and 3d best in each class.

At the close of the exhibition the tobacco was offered at public sale and brought from $13 to $53 per hundred pounds. The hogshead sold at the latter price was the prize hogshead exhibited by W. R. Wells, of Hart Co., and amounted to the handsome sum of $500, besides the premium.

HOOPER'S WESTERN FRUIT BOOK.—We have received a new and revised edition of this work from E. J. Hooper, Esq., the author. Many alterations and corrections have been made in the new edition, and to the Western fruit grower it is a valuable work of reference. Moore, Wilstach, Keyes & Co., publishers, Cincinnati, Ohio.

CITY PARKS.—Formerly, in laying out cities, the great omission for providing for suitable public parks, has been almost universal, and in after years, as the city increases in population, these breathing places are considered indispensable, and a site is purchased at any cost. The city of New York has recently purchased a large tract of land at an immense cost, and which will cost perhaps millions more in clearing the rocks and laying it out. Proposals were made by the Commissioners, offering premiums for the four best plans for improving and laying out these grounds.

The first premium of $2,000 was awarded to Messrs. Vaux & Olmstead.

Second premium $1,000, to S Gustin.

Third premium $7,50 to McIntosh and Miller.

Fourth premium $500, to Howard Daniels.

With these there were thirty-three plans offered. We have seen a diagram of that of Messrs. Vaux & Olmstead. Besides a number of cross-roads, miles of pleasant drives and walks are to be laid out, also one parade ground, three play grounds, a skating ground or pond; a site for a concert and exhibition hall; and observatory, fountains, flower gardens, and sites for statues, &c.

This will be the most extensive public ground of the kind in America and the most perfectly laid out. It will be not only an ornament to the great metropolis, but essential to the public health.

When cities are first planned lands are comparatively cheap, and provisions for public grounds may be made at a small cost; but when deferred till the public health actually demands, the cost, as in the case of the "Central Park" in New York, amounts to millions. These matters should not be forgotten in the growing West.

THE ATLANTIC MONTHLY.—The May number of this new favorite monthly is received, abounding in the most interesting and thrilling matter. We know of no work that has gained more rapidly in public favor. It is one of the established institutions of the country, and is destined to a brilliant career.

EMERY'S JOURNAL OF AGRICULTURE.—We have before taken occasion to speak of this newly established and excellent agricultural market weekly, from the great grain market of the world, Chicago. It is like some friends we have known, it improves on acquaintance. Has its great success caused its old and long established predecessors, the "Prairie Farmer," to "flat out?" We infer so because that was one of our most constant visitors, but a copy has not reached this office (Louisville) for lo! those many weeks. Dead, we guess.

NORTON'S SCIENTIFIC AGRICULTURE.—We are indebted to A. O. Moore, Agricultural Book Publisher, New York, for a copy of this valuable work. It treats of the Elements of Scientific Agriculture, or the connection between Science and the art of Practical Farming. John P. Norton, A. M., Professor of Scientific Agriculture in Yale College, is the author of the work. It is a most excellent treatise, and every farmer would be greatly benefited by reading it. It is especially adapted to those wishing to obtain a knowledge of the principles of agriculture. Everything is treated in the simplest manner, and every boy of fifteen years of age can compre-

bend every sentence in the book. To the young it is especially valuable. It is also adapted to the use of schools. Price 60 cents.

HEDGES AND EVERGREENS.—Being a complete Manual for the cultivation, pruning and management of all plants suitable for American hedging, especially the Maclura or Osage Orange. Illustrated with engravings of plants of Implements and processes. To which is added a Treatise on Evergreens, their different varieties, their propagation, transplanting and culture in the United States. By John A. Warder, M. D. A. O. Moore, publisher, 140 Fulton street, N. Y.

Mr. J. M. Crawford, No. 30 and 32 Chesnut street, has this work for sale. It is an interesting and valuable treatise. Those interested in hedging will be much benefitted by it. Price, $1.

BOOKS ON SHEEP HUSBANDRY.—A correspondent wishes to know whether there is any standard work on sheep, and where it can be found. There is "Youatt on Sheep," price 75 cents; also the "Shepherd's Own Book," by Youatt & Randall, price $2, and "Randall's Sheep Husbandry," price $1,25. These may be had by mail free of postage, by remitting the above prices and addressing A. O. Moore, Agricultural Book Publisher, 140 Fulton street, New York. There is also "Canfield on Sheep," an excellent work, which we presume may be had as above, but at what price we cannot say.

FREE MARTIN.—L. W. wishes to be informed what is a Free-martin, and how the animal differs from an ordinary cow. Free-martin is the name given by breeders to a twin cow calf born with a bull calf. Such females generally prove barran, owing, probably to some irregularity in the sexual organs, although to all appearance they fully resemble a cow. We have heard of instances of a twin heifer, the mate to a bull calf, breeding as regularly as the ordinary cow, but such an occurrence we believe is extremely rare. We know of no paralel instance with any other kind of animal, and the cause of this singular feature in the bovine race is rather unaccountable. They fatten kindly and make excellent beef.

NORTH-EASTERN MISSOURI AGRICULTURAL SOCIETY.—The third annual fair of this Society will be held on the fair grounds, near Paris, Monroe county, commencing on Monday the 13th of September next, and continuing five days.

President—James M. Bean, of Paris.
Rec. Sec.—Theo. Brace, "
Cor. Sec.—John J. Conyers, "
Treasurer—J. H. McVeigh, "
Marshal—T. P. Rubey, of Randolph county.
Ring Master—W. H. Holliday, of Monroe.

DIRECTORS.

M. R. B. Williams, R. W. Sinclair, Wm. Penix, J. McIlhany, Wm. C. Splawn, James McPike, Ben. Davis, G. G. Hawkins, Avory Grimes, Wm. Smith.

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Turnip Seed! Turnip Seed!

PLOW MAKERS TAKE NOTICES.
BRINLY'S PATENT PLOW.

Whereas letters patent was granted me on the 13th of April, 1858, for improvements on plows, and being desirous that this plow should be brought into general use throughout the whole country, I am now offering to sell County or State rights on reasonable terms. This plow has many advantages over any other plow now before the public. It will work in any soil. It has an apparatus for pulling down tall weeds and grass before the plow so that it is impossible to choke it. It is the lightest draft plow in the United States, so decided on trial at the United States fair, Sept. 1857. I will further, say that my plows have taken 78 first premiums in less than four years.

All letters must be addressed to me at Simpsonville, Ky., until after the first day of July; after that to Louisville, Ky. j'o T. E. C. BRINLY.

CHESTER WHITE PIGS.

I have now twenty pair of this celebrated stock, suitably paired, not akin, bred from premium and other choice stock. Boxed and delivered on cars free of charge. Also, one or two Ayrshire Bulls, thorough-bred, and one South Down Buck. I tender thanks to my friends in Ohio and other States, for the liberal patronage I have received for the past three years. For prices address

H. T. WOLLARD,
junelt. CASTINE, Darke county, Ohio.